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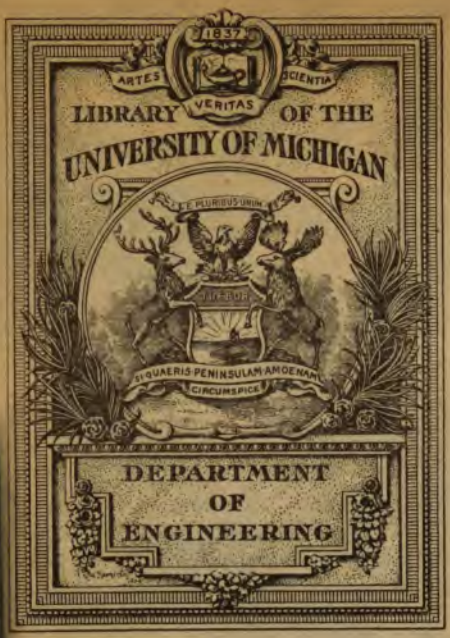
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TABLES

FOR

CALCULATING THE CUBIC CONTENTS

OF

EXCAVATIONS AND EMBANKMENTS,

BY

AN IMPROVED METHOD OF DIAGONALS AND SIDE TRIANGLES.

With the compliments of the author.

BY

JOHN R. HUDSON, C.E.

SECOND EDITION.
REVISED AND ENLARGED.

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ERRATA.

On the following pages of Hudson's Tables:

On 1st page of Preface, 7th line from bottom.
" Page 7, 14th line from bottom.
" Page 8, 7th line from bottom.
" Page 9, 3d line from bottom.

} For page 12 read page 6.

PREFACE.

THE formula given in this work has all the accuracy of the "prismoidal formula," while it has the advantage of being much shorter, and better adapted to use with tables.

By using the tables of side triangles, the cubic yards for *irregular* cross sections (of three heights) can be calculated almost as quickly as those for *level* cross sections, and the chance of error is greatly reduced, as nearly all the work is done by tables, which have been calculated with the greatest care.

The method is simple and rapid, and more accurate than those usually employed. The only error that occurs by its use is that, common to all others, arising from the fact that the ground is a *warped* and not a *plane* surface; but as by this method the surface between two cross sections is divided into *four* planes, the error is only *one-quarter* of the error that occurs when (as by the usual methods) the surface is considered as *one* plane.

The principle that is new is in the use of the sections a and a', that are made up of the parts touched by the diagonals; and the tables of side triangles are also new.

All the work is shown in the short equations, opposite the figures marked A, a, A' and a' (see page 12).

The tables can be used to shorten calculations by the prismoidal formula, as shown in Articles IV. and V.

The method of preparing tables in Article VI., was suggested by the method given in Trautwine's "Excavation and Embankments."

Attention is called to Articles I. and IV., as they demonstrate the advantage of using the tables with the "prismodal formula."

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" "	20	"	"	"	"	½	"	"	"	1	"	35 " 59
" "	24	"	"	"	"	1½	feet	"	"	1	"	21 " 45
" "	24	"	"	"	"	1	foot	"	"	1	"	29 " 53
" "	26	"	"	"	"	1½	feet	"	"	1	"	23 " 47
" "	28	"	"	"	"	1	foot	"	"	1	"	31 " 55
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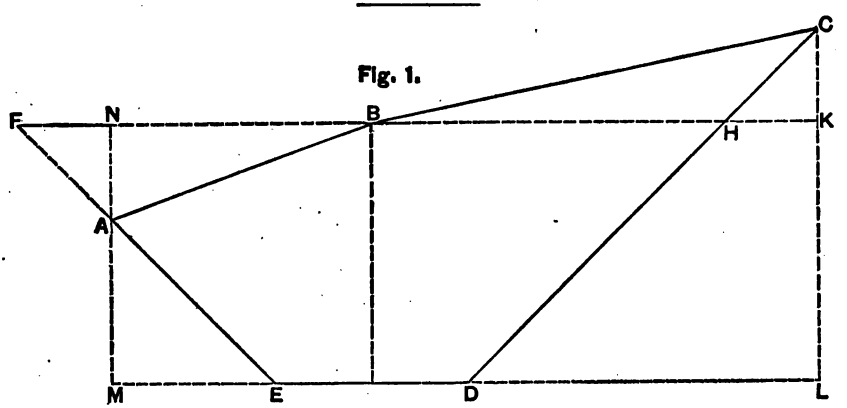
EXCAVATIONS AND EMBANKMENTS.

ARTICLE 1.

Fig. 1.



LET *ABCDE* (Fig. 1) represent the cross-section of an excavation; its area will be equal to the area of the level cross-section *FHDE*, plus the area of the side triangle *CHB*, minus the area of the side triangle *FAB*. The area of *CHB* equals $\frac{1}{2}\ BH \times CK$. *CK* is the difference between the center height and the side height *CL*. The area of *FAB* equals $\frac{1}{2}\ BF \times AN = \frac{1}{2}\ BH \times AN$. *AN* is the difference between the center height and the side height *NM*.

When the side height is greater than the center height, the side triangle is to be added; when the side height is less than the center height, the side triangle is to be subtracted.

In the tables of level cross-sections* will be found the areas of level cross-sections multiplied by 100 (the usual length of a station in feet), and divided by 27 (since 27 cubic feet = 1 cubic yard).

In the tables of side triangles the difference between the center height and the side height is taken as 1, and the area thus found is multiplied by 100, and divided by 27.

---

* Or more properly, tables showing the cubic yards in railroad excavations and embankments 100 feet long, and with equal level cross-sections. These titles "Tables of Level Cross-Sections," and "Tables of Side Triangles" are abbrevations used for convenience.

ARTICLE 2.

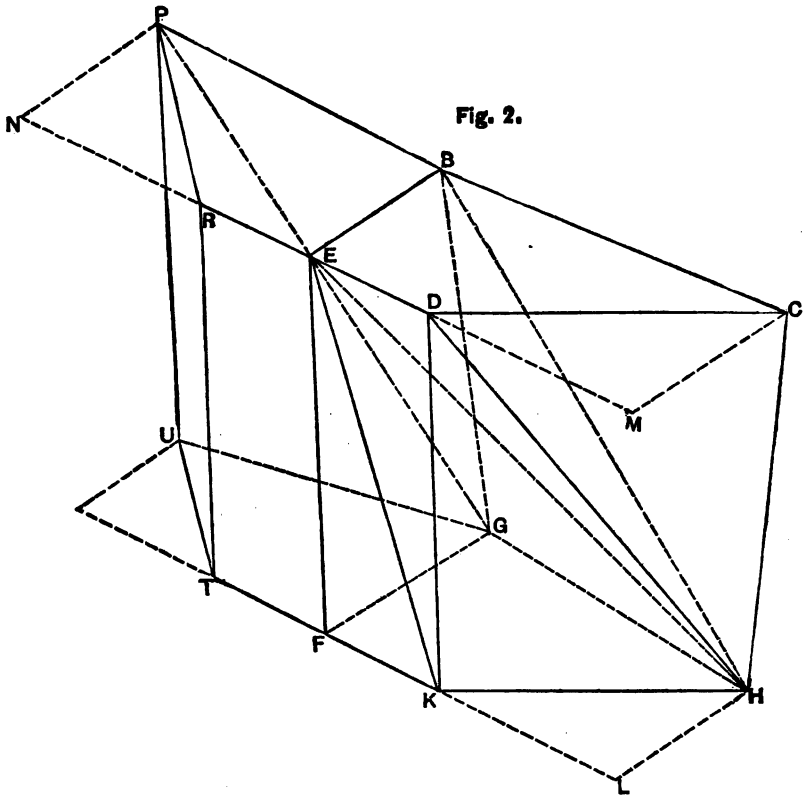


Fig. 2.

PROOF OF METHOD.

LET Fig. 2 represent an excavation, and EF the center line of the road, and let $EF = l$ = length of excavation, and $RD = TK = b$ = width of the road-bed. In the right hand side of the excavation, draw a diagonal from B to H or from G to C; this diagonal should be selected in the field, and will generally be determined by a ridge or depression on the surface.

If the points B, C, H and G are all in the same plane the diagonal can be drawn in either direction. Suppose in Fig. 2 a depression runs from B to H: then draw the diagonal BH. Let a_1 equal the area of section $BCDE$, $EB = c$ = the center height, $MC = h$ = the side height,

and $EM = d$ = the distance out to the right. Let a_2 equal the area of section $GHKF$, $FG = c'$ = the center height, $LH = h'$ = the side height, and $FL = d'$ = the distance out to the right. Through the point H pass the planes HEK, HED, HEG, and HEB, dividing the half section into four pyramids. Then we have,

Volume of pyramid $H - BCDE = \frac{1}{3} EF \times$ area $BCDE = \frac{1}{3} l (a_1)$.

" " " $E - FGHK = \frac{1}{3} EF \times$ area $FGHK = \frac{1}{3} l (a_2)$.

" " " $H - EDK = \frac{1}{3} HL \times$ area $DEK = \frac{1}{3} h' \times l \times \frac{1}{4} b = \frac{1}{3} l (\frac{1}{4} bh')$.

" " " $H - BEG = \frac{1}{3} LF \times$ area $BEG = \frac{1}{3} d' \times c \times \frac{1}{2} l = \frac{1}{3} l (\frac{1}{2} cd')$.

Adding the two last pyramids together we have,

$$\text{Volume } H - EDK + \text{Volume } H - BEG = \tfrac{1}{3} l (\tfrac{1}{2} cd' + \tfrac{1}{4} bh').$$

But $\frac{1}{2} cd' + \frac{1}{4} bh'$ is equal to the area of *half* or semi cross-sections having the center height (c), and the side height (h'), that are on the diagonal BH; and having the same road-bed and side slope as sections $PBCDR$ and $UGHKT$; denote this area by a.

Then the sum of all the pyramids is

(1). Volume of the right hand side of the excavation

$$= \tfrac{1}{3} (a_1 l + a_2 l + al).$$

In the left hand side of the excavation, suppose the diagonal GP to be selected. Let a'' = area $PREB$, a''' = area $TFGU$, and a' = the area of a cross-section having the center height GF and the side height PN and the same side slope and road-bed as the cross-section $PBCDR$ and $TKHGU$.

Then, by the same process as before, we have

(2). Volume of the left hand side of the excavation

$$= \tfrac{1}{3} (a'' l + a''' l + a' l).$$

Let A = area of cross-section $PBCDR = a_1 + a''$, and A' = area of cross-section $UGHKT = a_2 + a'''$.

The sum of equations (1) and (2) will then be,

(3). Volume of excavation

$$= \tfrac{1}{3} (Al + al + A' l + a' l).$$

Since all the heights and distances in railroad work are taken in feet, the volume of excavation in equation (3) will be in cubic feet; to change into cubic yards, divide both terms of the equation by 27; and let l equal 100 feet, and equation (3) will become,

Cubic yards in excavation

$$= \tfrac{1}{3}\left(\frac{100A}{27} + \frac{100a}{27} + \frac{100A'}{27} + \frac{100a'}{27}\right).$$

Since an embankment can be considered an excavation inverted, the equation,

Cubic yards in embankment

$$= \tfrac{1}{3}\left(\frac{100A}{27} + \frac{100a}{27} + \frac{100A'}{27} + \frac{100a'}{27}\right),$$

is also true.

ARTICLE 3.

EXAMPLE.

FIG. 3.

Station.	Left Cut, or Fill.	Center Cut, or Fill.	Right Cut, or Fill.
0	18.0	12.5	14.8
1	16.0	15.0	11.6

LET Fig. 3 represent part of a page in a cross-section book; the slanting lines show the direction of the diagonals. Let the road-bed equal 20 feet, and let the side slopes be 1 foot horizontal to 1 vertical, and let 100 feet be the length of a station.

1st. Take station 0. From Table 13 we find the number for 12.5 to be 1504.6; in Table 14 for center height 12.5 we find 41.67. The left side height is 0.5 greater than the center height, and $41.67 \times 0.5 = 20.8$; the right side height is 2.3 greater than the center height, and $41.67 \times 2.3 = 95.8$, and $1504.6 + 20.8 + 95.8 = 1621.2$.

2d. Consider the heights on the diagonal from the center height at station 0. We have $1504.6 \div 2 = 752.3$. The side height (11.6) is 0.9 less than the center height (12.5), and $41.67 \times 0.9 = 37.5$ and $752.3 - 37.5 = 714.8$.

3d. Take station 1. In Table 13 the number for 15.0 is 1944.4. In Table 14 for 15.0 is found 46.30. The left side height is 1.0 greater than the center height and $46.3 \times 1.0 = 46.3$, the right side height is 3.4 less than the center height and $46.3 \times 3.4 = 157.4$, and

$$1944.4 + 46.3 - 157.4 = 1833.3.$$

4th. Consider the height on the diagonal from the center height of station 1. We have $1944.4 \div 2 = 972.2$. The side height is 2.0 less than the center height, and $46.3 \times 2.0 = 92.6$ and $972.2 - 92.6 = 879.6$.

Adding the four results and dividing by 3, we have,

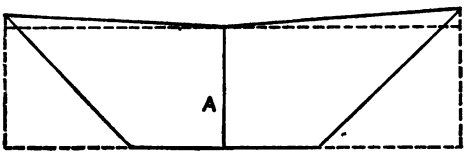
$$\tfrac{1}{3}\,(1621.2 + 714.8 + 1833.3 + 879.6) = 1683.0 \text{ cubic yards.}—\textit{Ans.}$$

The work can be shortened by calling the difference between the

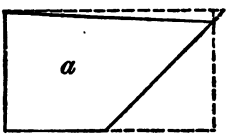
center height and the side height plus (+) when the side height is greater, and minus (−) when it is less than the center height; and multiplying the number taken from the tables of side triangles by the algebraic sum of the left and right differences.*

In the example taken above we would have,

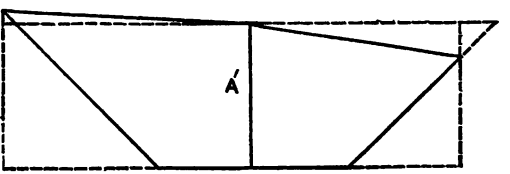
(1). 1504.6+(41.67 × +2.8) = 1621.8



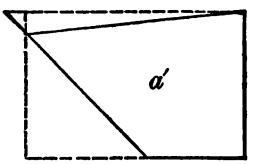
(2). 752.8+(41.67 × −0.9) = 714.8



(3). 1944.4+(46.8 × −2.4) = 1833.8



(4). 972.2+(46.8 × −2.0) = 879.6



3)5049.0

1683.0. Answer in cubic yards.

The figures A, a, A' and a' are not part of the example, but will help to show the connection of the example with Articles 1 and 2. With a little practice this method will be found rapid; it is also as accurate as any that can be used when only three heights are taken at a station; and is much more accurate than the method of equivalent level cross-sections, or the different methods of averaging.

The reader will notice that the side distances out are not used in the method.

If the stations are taken at distances so near together that the surface

* Or multiply the number taken from the table of side triangles by the difference between the sum of the two side heights, and twice the center height, *add* this product when the sum of the side heights is greater than twice the center height, *subtract* when it is less.

of the ground between them is all in two planes, one on each side of the center line of the road, it will not be necessary to note the diagonals; and to find the cubic yards between two stations, find by the tables the cubic yards for each end cross-section, and for a cross-section (with the same road-bed and side slope) having the center height of one of the stations and the side heights of the other, add these cubic yards and divide by 3.

EXAMPLE. Road-bed 16 feet wide, side slopes 1 to 1.

Station.	Left.	Center.	Right.
1	32.8	26.6	19.8
2	18.4	14.4	10.0

26.6	32.8	53.2	64.1	4197	14.4	18.4	28.8	41.5	1621
2	19.8	52.6	.6	38	2	10.0	28.4	.4	17
53.2	52.6	.6	38.46	4159	28.8	28.4	.4	16.60	1604

			4159
53.2	64.1	4197	1604
28.4	24.8	1590	2607
24.8	1589.68	2607	3)8370
			2790

Answer in cubic yards.

In the above example, for station 1, twice the center height is $26.6 \times 2 = 53.2$; the sum of the side heights is $32.8+19.8=52.6$, and $53.2-52.6 = 0.6$. The number in Table XII. for center height 26.6 is 64.1, and $64.1 \times 0.6 = 38.46$ (see rule foot of page 12). In Table XI. the number for height 26.6 is 4197, and $4197 - 38 = 4159$ cubic yards. Proceed in the same way for station 2 and for the made-up section, add the results and divide by 3. In this example the tenths of cubic yards have been omitted, to show the use of the tables when the tenths are not required.

The answer will be the same whether we take for the made-up section the center height of station 1 and the side heights of station 2, or the center height of station 2 and the side heights of station 1.

If Table XXXI. is used, multiply by 2 instead of dividing by 3 at the end of the calculation.

When one end of an excavation or embankment is a point, call the made-up section zero and proceed as before.

For short stations proceed as for full (100 feet) stations, and take the proportional part of the result.

ARTICLE 4.

PRISMOIDAL FORMULA.

THESE tables are adapted to use with the prismoidal formula, and in three-level ground shorten the calculations. The usual form of the formula—"Add together the areas of the end-sections and four times the area of the mid-section, and multiply by one sixth of the length" (and divide by 27 for cubic yards)—can be changed to: Find from the tables the cubic yards corresponding to the end-sections, and four times the cubic yards corresponding to the mid-section, add them together and divide by 6.

If tables similar to Tables XXV to XXXII are used, the division by 6 is avoided, and there will be the advantage of using smaller numbers throughout the calculations. The center and side heights of the mid-section are found by taking the average of like heights in the end sections.

EXAMPLE. Road-bed 10 feet wide. Side slopes $1\frac{1}{2}$ to 1.

Station.	Left.	Center.	Right.
1	20.0	1.0	5.0
Mid-section.	22.0	20.0	12.0
2	24.0	39.0	19.0

1	20	25	23	46	20	12	40	10.8	494
2	5	2	2.0	7	2	22	34	6	65
2	25	23	46	53	40	34	6	64.8	429

					53	
39	24	78	19.6	1649	$429 \times 4 = 1716$	
2	19	43	35	686	963	
78	43	35	686	963	2732	Answer in cubic yards.

In the above example, for station 1, twice the center height is $1 \times 2 = 2$; the sum of the side heights is $20 + 5 = 25$, and $25 - 2 = 23$. The number in Table XXVI for center height 1.0 is 2.0, and $2.0 \times 23 = 46$ (see rule foot of page 12: Multiply the number taken from the table of side triangles by the difference between the sum of the side heights and twice the center height; add this product when the sum of the side heights is greater than twice the center height, subtract when it is less).

In Table XXV the number for height 1.0 is 7, and $7 + 46 = 53$.

Proceed in the same manner for station 2 and the mid-section, multiply the number found for the mid-section by 4, then add the results for the an-

swer in cubic yards. If Tables I and II had been used we would have had (omitting tenths):

1	20	25	12.0	43	20	12	40	64.8	2963
2	5	2	23	276	2	22	34	6	389
2	25	23	276	319	40	34	6	388.8	2574

				319		
39	24	78	117.6	9894	$2574 \times 4 = 10296$	
2	19	43	35	4116	5778	
78	43	35	4116	5778	6)16393	
					2732	Answer in cubic yards.

Since Tables XXV and XXVII are not carried to tenths of cubic yards, an error of 3 yards in a station of 100 feet *may* arise in using them.

Tables similar to XXIX and XXXI will give the answer to the nearest cubic yard, and the tables from I to XXIII even closer if required. When the cross-sections are level the calculation is short; for example, suppose the road-bed is 24 feet wide, side slopes $1\frac{1}{2}$ to 1, height at one end 0.9, and at the other end 1.5: then the height of the mid-section is 1.2. In Table VII the number for 0.9 is 85, the number for 1.5 is 146, the number for 1.2 is 115; and $115 \times 4 = 460$, and $460 + 85 + 146 = 691$; dividing by 6 we have 115 cubic yards, answer.

The same number will be found in Table XXXIV for heights 0.9 and 1.5. Similar tables can be prepared and extended. For approximate estimates we can use the following methods: In the above example, take from Table VII the number for 0.9, 85, and the number for 1.5, 146, add them $85 + 146 = 231$, and divide by 2, $231 \div 2 = 115.5$ cubic yards, answer.

If three heights are taken at a station, find from Tables I to XXIV, by the rule at the bottom of page 12 (repeated in this article), the cubic yards for each end cross-section, add them, and divide by 2: this will give the same answer as the common method of averaging end-areas.

ARTICLE 5.

IRREGULAR CROSS-SECTIONS.

WHERE more than three heights are taken at a station, the irregular cross-section can be reduced to an equivalent cross-section of three heights.

Find the difference between the area of the portion of the cross-section on the left side of the center line and one half the area of a level cross-section of the given center height, and divide this difference by one half the horizontal distance from the top of the center height to the side slope; the result, added to the center height when the area of the left side is greater than one half the area of the level cross-section, subtracted when it is less, will give the left side height of a cross-section of three heights, equal in area to the given irregular cross-section. The right side height is found in the same manner.

Then the corresponding cubic yards can be found from the tables by the methods already given.

Where greater accuracy is required, to find the cubic yards in an excavation or embankment of irregular cross-section of more than three heights, find a mid-section by arithmetical averages of like parts of the irregular end-sections, and calculate the cubic contents by the prismoidal formula.

In using the prismoidal formula, after the sum of the end-areas and four times the mid-area has been found, instead of multiplying by one sixth of the length and dividing by 27, we can find the cubic yards for 100 feet opposite the area nearest this sum in Table XXXIII.

EXAMPLE. If the end-areas are 119 and 75, and four times the mid-area is 384, their sum will be 578; and for area 578.34 in Table XXXIII we find 357 cubic yards, the answer to the nearest cubic yard. If the sum of the end-areas and four times the mid-area exceeds 1633 square feet, suppose the areas in the table to be multiplied by 10, or 100 (by mentally moving the decimal point one or two places to the right). Take from the table the cubic yards opposite the area that (thus multiplied) will be nearest to and less than the given sum of areas, and multiply them by 10 or 100. Then take the multiplied area from the given sum of areas and find the cubic yards for the remainder from the table, and add them to the cubic yards already found for the answer.

EXAMPLE. End-areas + 4 × mid-area = 2040 square feet.

$$202.50 \times 10 = \begin{matrix} 2040 \\ \overline{2025} \\ 15 \end{matrix} \begin{matrix} = \text{by table} \\ = \text{“ “} \end{matrix} \begin{matrix} 125 \times 10 = 1250 \\ 9 \\ \overline{1259} \end{matrix}$$

Answer in cubic yards.

Diagrams of irregular cross-sections can be drawn on cross-section paper, then by inspection the heights of level cross-sections of equal area can be found approximately.

ARTICLE 6.

TO PREPARE TABLES OF LEVEL CROSS-SECTIONS,

Or, more correctly, tables showing the cubic yards in excavations or embankments 100 feet long and of equal level cross-section.

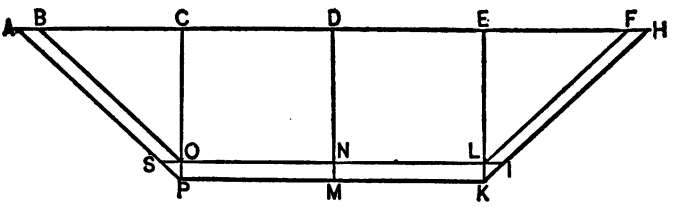


FIG. 4.

The cubic yards for cuts and fills from 0.0 to 0.9 (inclusive) may be found by the equation, Cubic yards for any height $= \frac{100}{27}$ area of level cross-section for that height. In the level cross-section, Fig. 4, let $DN = 0.9$, and let $NM = 0.1$. DM will be 1.0, and we see that the section $ASIH$ must be added to the cross-section for 0.1 ($SPKI$) to find the cross-section for 1.0 ($APKH$); but the section $ASIH$ is equal to the cross-section for 0.9 ($BOLF$) plus the parallelograms $ABSO$ and $FHIL$. These two parallelograms have the equal heights $CO = EL = 0.9$, and the equal bases $SO = LI = 0.1 \times$ ratio of side slope to 1; so the sum of their areas equals 0.18 $\times$ ratio of side slope to 1, and we have

$$SPKI + BOLF + (0.18 \times \text{ratio of side slope to 1}) = APKH.$$

Multiplying both terms of this equation by 100 and dividing by 27, and reducing, we have

$$SPKI\frac{100}{27} + BOLF\frac{100}{27} + \frac{2}{3}\text{ ratio of side slope to 1} = APKH\frac{100}{27}.$$

$SPKI\frac{100}{27}$ equals the cubic yards for height 0.1. Let $Y = BOLF\frac{100}{27}$ = cubic yards for height 0.9, and let $x = \frac{2}{3}$ ratio of side slope to 1. $APKH\frac{100}{27}$ equals cubic yards for height 1.0; substituting in the equation, we have

(Cubic yards for height 0.1) $+ Y + x =$ cubic yards for height 1.0.

In the same way we can find the cubic yards for height 1.1 by adding $Y+2x$ to the cubic yards for height 0.2; and in general calling any cut or fill a, we will have

(Cubic yards for a)$+Y+10ax=$cubic yards for cut or fill 0.9 greater than a.

The following table gives the value of x for different side slope, calculated by the equation $x = \frac{2}{3}$ ratio of side slope to 1:

Side slope.	x.	Side slope.	x.	Side slope.	x.
¼ to 1	.16⅔	1 to 1	.66⅔	2 to 1	1.33⅓
½ to 1	.33⅓	1½ to 1	1.00	3 to 1	2.00

It is best to prepare the tables on a ruled form; Table B is nearer the regular form, but Table A will be found the best, and it can easily be copied into the usual form. Taking Table A as an example, and having calculated the cubic yards for heights from 0.0 to 0.9, we find that Y (the cubic yards for height 0.9) equals 64.5; and adding x, or 1.0, we have 65.5, the number to place below the space for the cubic yards for height 0.1; adding 1.0 again, we have 66.5 to place below the space for 0.2, and continuing we find the numbers 67.5, 68.5, 69.5, 70.5, 71.5, 72.5, 73.5, 74.5 (74.5 coming below the space for cubic yards for height 1.0), 75.5, 76.5, and so on to the end of the first part of the table. Adding $9x$, or 9, to any number in the first part of the table, we find the number just below it; this can be used as a check, and each number can be checked as it is written down. All these additions can be done mentally, and only the sums or results written down.

Having completed and checked the First Part, we can write in the table the cubic yards for heights from 0.0 to 0.9, and by continued additions can find the cubic yards for all heights and have the completed table, Part Second. As a check, calculate the cubic yards in the last line of the table, in this case the cubic yards for heights from 15.0 to 15.9, by the formula,

Cubic yards for any height $= \frac{100}{27}$ area of level cross-section for that height.

Nearly all the calculations can be made on the table itself with accuracy and rapidity.

In Table A the first column, headed "Heights," could have been continued to the end of the table, and all the table kept to the right of that column (as in the usual form); but the form adopted is more compact.

ARTICLE 7.

TO PREPARE TABLES OF SIDE TRIANGLES,

Or, more correctly, tables showing the cubic yards of excavation or embankment in right prisms 100 feet long, and with side triangles for bases or end-sections; side triangle being the name given to a triangle (in an irregular cross-section) that has for a base the horizontal distance from the top of the center height to the side slope, and for a perpendicular the difference between the center height and the side height. For convenience 1.0 is the perpendicular or height of the side triangles used in the tables.

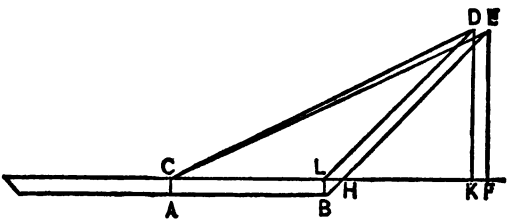


FIG. 5.

In Fig. 5, let $AB = CL = \frac{1}{2}$ width of the road-bed; let $CA = 0.1$, and let $DK = EF = 1.0$. Then CDL will be the side triangle with height 1.0 for center height 0.0, and CEH will be the side triangle with height 1.0 for center height 0.1. The difference of the areas of the two triangles is equal to the difference of their bases multiplied by half their common height; therefore $CDL + (LH \times 0.5) = CEH$. Substituting for LH its value, $0.1 \times$ ratio of side slope to 1, and then multiplying both terms of the equation by 100 and dividing by 27, we have

$$CDL\,\frac{100}{27} + \frac{5}{27} \text{ ratio side slope to } 1 = CEH\,\frac{100}{27}.$$

$CDL\,\frac{100}{27}$ will equal the cubic yards for center height 0.0. Let $y = \frac{5}{27}$ ratio side slope to 1; $CEH\,\frac{100}{27}$ will equal the cubic yards for center height 0.1; and in general, calling any center height a, it is evident that we shall have (cubic yards in these tables of side triangles for a) $+ y =$ cubic yards for center height 0.1 greater than a.

The following table gives the value of y for different side slopes, calculated by the equation $y = \frac{5}{27}$ ratio side slope to 1:

Side slope.	y.	Side slope.	y.	Side slope.	y.
¼ to 1	.046296 +	1 to 1	.185185 +	2 to 1	.370370 +
½ to 1	.09259 +	1½ to 1	.27777 +	3 to 1	.55555 +

$CDL = CL \times \frac{1}{2}\ DK = \frac{1}{2}$ width of road-bed $\times$ 0.5 $= \frac{1}{4}$ width of road-bed. Multiplying by 100 and dividing by 27, we have $CDL \frac{100}{27} = \frac{25}{27}$ width of road-bed; therefore to find the cubic yards for center height 0.0 (in the tables) take $\frac{25}{27}$ of the width of the road-bed. Take for example Table XII. Having found that $\frac{25}{27}$ of the width of the road-bed (16.0) equals 14.8148, proceed in the following manner:

Center height.	Cubic yards.	Center height.	Cubic yards.
0.0	14.8148	0.3	15.3704
	.1852		.1852
0.1	15.0000	0.4	15.5556
	.1852		.1852
0.2	15.1852	0.5	15.7408
	.1852		.1852
0.3	15.3704	0.6	15.9260
		etc.,	etc., etc., etc.

In Tables II, IV, VI, etc., where the side slope is 1½ to 1, we see that the decimal part of the number for 1.8 is the same as the decimal part of the number for 0.0, and the decimal part of the number for 1.9 is the same as the decimal part of the number for 0.1, etc., and also that the integers (or non-decimal part of the numbers) only change when the decimal of a number is less than the decimal of the preceding number. In all the tables of side triangles the decimals are repeated in the same way, though generally at longer intervals.

By taking advantage of this, after having calculated the first few lines of a table by the above method, we can finish the table by simply writing in the numbers without any calculations.

In Table II, by starting at the number for 0.9 and reading diagonally down the page to the left, we see that the decimals come in this order: .46, .96, .46, .96, etc. In the same way, starting from any number the decimals are repeated at intervals of two; this is because the difference between a number, in this table, and the number diagonally below to the left is 2.50.

In Table XII the decimals are repeated at intervals of three, and reading in the same way any of the tables, either level cross-sections or side triangles, the decimals will be found in similar series.

This can be used as a check; and the best way to prepare a table of side triangles is to first write the decimal part of the numbers only, check them by reading diagonally down the page to the left, and then write in the integers.

It will be noticed that the number for 2.0 in Table II is the same as the number for 0.0 in Table VI; and in many cases one table of side triangles may be used for several widths of road-bed by simply moving the numbers in the columns headed "Center Heights."

TABLES.

TABLE NO. 1.

Level Cross Sections.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 10 feet wide. Side slopes 1½ to 1.

Height.	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Height.
0	0.0	3.8	7.6	11.6	15.7	19.9	24.2	28.6	33.2	37.8	0
1	42.6	47.5	52.4	57.5	62.7	68.1	73.5	79.0	84.7	90.4	1
2	96.3	102.3	108.4	114.6	120.9	127.3	133.9	140.5	147.3	154.1	2
3	161.1	168.2	175.4	182.7	190.1	197.7	205.3	213.1	221.0	228.9	3
4	237.0	245.2	253.6	262.0	270.5	279.2	287.9	296.8	305.8	314.9	4
5	324.1	333.4	342.8	352.4	362.0	371.8	381.6	391.6	401.7	411.9	5
6	422.2	432.6	443.2	453.8	464.6	475.5	486.4	497.5	508.7	520.1	6
7	531.5	543.0	554.7	566.4	578.3	590.3	602.4	614.6	626.9	639.3	7
8	651.9	664.5	677.3	690.1	703.1	716.2	729.4	742.7	756.1	769.7	8
9	783.3	797.1	811.0	824.9	839.0	853.2	867.6	882.0	896.5	911.2	9
10	925.9	940.8	955.8	970.9	986.1	1001.4	1016.8	1032.4	1048.0	1063.8	10
11	1079.6	1095.6	1111.7	1127.9	1144.2	1160.6	1177.2	1193.8	1210.6	1227.5	11
12	1244.4	1261.5	1278.7	1296.1	1313.5	1331.0	1348.7	1366.4	1384.3	1402.3	12
13	1420.4	1438.6	1456.9	1475.3	1493.9	1512.5	1531.3	1550.1	1569.1	1588.2	13
14	1607.4	1626.7	1646.1	1665.7	1685.3	1705.1	1725.0	1744.9	1765.0	1785.2	14
15	1805.6	1826.0	1846.5	1867.2	1887.9	1908.8	1929.8	1950.9	1972.1	1993.4	15
16	2014.8	2036.4	2058.0	2079.8	2101.6	2123.6	2145.7	2167.9	2190.2	2212.6	16
17	2235.2	2257.8	2280.6	2303.5	2326.4	2349.5	2372.7	2396.1	2419.5	2443.0	17
18	2466.7	2490.4	2514.3	2538.3	2562.4	2586.6	2610.9	2635.3	2659.9	2684.5	18
19	2709.3	2734.1	2759.1	2784.2	2809.4	2834.7	2860.1	2885.7	2911.3	2937.1	19
20	2963.0	2988.9	3015.0	3041.2	3067.6	3094.0	3120.5	3147.2	3173.9	3200.8	20
21	3227.8	3254.9	3282.1	3309.4	3336.8	3364.4	3392.0	3419.8	3447.6	3475.6	21
22	3503.7	3531.9	3560.2	3588.6	3617.2	3645.8	3674.6	3703.5	3732.4	3761.5	22
23	3790.7	3820.1	3849.5	3879.0	3908.7	3938.4	3968.3	3998.3	4028.4	4058.6	23
24	4088.9	4119.3	4149.9	4180.5	4211.3	4242.1	4273.1	4304.2	4335.4	4366.7	24
25	4398.1	4429.7	4461.3	4493.1	4525.0	4556.9	4589.0	4621.2	4653.6	4686.0	25
26	4718.5	4751.2	4783.9	4816.8	4849.8	4882.9	4916.1	4949.4	4982.8	5016.4	26
27	5050.0	5083.8	5117.6	5151.6	5185.7	5219.9	5254.2	5288.6	5323.2	5357.8	27
28	5392.6	5427.5	5462.4	5497.5	5532.7	5568.1	5603.5	5639.0	5674.7	5710.4	28
29	5746.3	5782.3	5818.4	5854.6	5890.9	5927.3	5963.9	6000.5	6037.3	6074.1	29
30	6111.1	6148.2	6185.4	6222.7	6260.1	6297.7	6335.3	6373.1	6411.0	6448.9	30
31	6487.0	6525.2	6563.6	6602.0	6640.5	6679.2	6717.9	6756.8	6795.8	6834.9	31
32	6874.1	6913.4	6952.8	6992.4	7032.0	7071.8	7111.6	7151.6	7191.7	7231.9	32
33	7272.2	7312.6	7353.2	7393.8	7434.6	7475.5	7516.4	7557.5	7598.7	7640.1	33
34	7681.5	7723.0	7764.7	7806.4	7848.3	7890.3	7932.4	7974.6	8016.9	8059.3	34
35	8101.9	8144.5	8187.3	8230.1	8273.1	8316.2	8359.4	8402.7	8446.1	8489.7	35
36	8533.3	8577.1	8621.0	8664.9	8709.0	8753.2	8797.6	8842.0	8886.5	8931.2	36
37	8975.9	9020.8	9065.8	9110.9	9156.1	9201.4	9246.8	9292.4	9338.0	9383.8	37
38	9429 6	9475.6	9521.7	9567.9	9614.2	9660.6	9707.2	9753.8	9800.6	9847.5	38
39	9894.4	9941.5	9988.7	10036.1	10083.5	10131.0	10178.7	10226.4	10274.3	10322.3	39
40	10370.4	10418.6	10466.9	10515.3	10563.9	10612.5	10661.3	10710.1	10759.1	10808.2	40
41	10857.4	10906.7	10956.1	11005.7	11055.3	11105.1	11155.0	11204.9	11255.0	11305.2	41
42	11355.6	11406.0	11456.5	11507.2	11557.9	11608.8	11659.8	11710.9	11762.1	11813.4	42
43	11864.8	11916.4	11968.0	12019.8	12071.6	12123.6	12175.7	12227.9	12280.2	12332.6	43
44	12385.2	12437.8	12490.6	12543.5	12596.4	12649.5	12702.7	12756.1	12809.5	12863.0	44
45	12916.7	12970.4	13024.3	13078.3	13132.4	13186.6	13240.9	13295.3	13349.9	13404.5	45
46	13459.3	13514.1	13569.1	13624.2	13679.4	13734.7	13790.1	13845.7	13901.3	13957.1	46
47	14013.0	14068.9	14125.0	14181.2	14237.6	14294.0	14350.5	14407.2	14463.9	14520.8	47
48	14577.8	14634.9	14692.1	14749.4	14806.8	14864.4	14922.0	14979.8	15037.6	15095.6	48
49	15153.7	15211.9	15270.2	15328.6	15387.2	15445.8	15504.6	15563.5	15622.4	15681.5	49
50	15740.7	15800.1	15859.5	15919.0	15978.7	16038.4	16098.3	16158.3	16218.4	16278.6	50
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	

TABLE NO. II.

Side Triangles.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 10 feet wide. Side slopes 1½ to 1.

Centre Height.	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Centre Height.
0	9.26	9.54	9.81	10.09	10.37	10.65	10.93	11.20	11.48	11.76	0
1	12.04	12.31	12.59	12.87	13.15	13.43	13.70	13.98	14.26	14.54	1
2	14.81	15.09	15.37	15.65	15.93	16.20	16.48	16.76	17.04	17.31	2
3	17.59	17.87	18.15	18.43	18.70	18.98	19.26	19.54	19.81	20.09	3
4	20.37	20.65	20.93	21.20	21.48	21.76	22.04	22.31	22.59	22.87	4
5	23.15	23.43	23.70	23.98	24.26	24.54	24.81	25.09	25.37	25.65	5
6	25.93	26.20	26.48	26.76	27.04	27.31	27.59	27.87	28.15	28.43	6
7	28.70	28.98	29.26	29.54	29.81	30.09	30.37	30.65	30.93	31.20	7
8	31.48	31.76	32.04	32.31	32.59	32.87	33.15	33.43	33.70	33.98	8
9	34.26	34.54	34.81	35.09	35.37	35.65	35.93	36.20	36.48	36.76	9
10	37.04	37.31	37.59	37.87	38.15	38.43	38.70	38.98	39.26	39.54	10
11	39.81	40.09	40.37	40.65	40.93	41.20	41.48	41.76	42.04	42.31	11
12	42.59	42.87	43.15	43.43	43.70	43.98	44.26	44.54	44.81	45.09	12
13	45.37	45.65	45.93	46.20	46.48	46.76	47.04	47.31	47.59	47.87	13
14	48.15	48.43	48.70	48.98	49.26	49.54	49.81	50.09	50.37	50.65	14
15	50.93	51.20	51.48	51.76	52.04	52.31	52.59	52.87	53.15	53.43	15
16	53.70	53.98	54.26	54.54	54.81	55.09	55.37	55.65	55.93	56.20	16
17	56.48	56.76	57.04	57.31	57.59	57.87	58.15	58.43	58.70	58.98	17
18	59.26	59.54	59.81	60.09	60.37	60.65	60.93	61.20	61.48	61.76	18
19	62.04	62.31	62.59	62.87	63.15	63.43	63.70	63.98	64.26	64.54	19
20	64.81	65.09	65.37	65.65	65.93	66.20	66.48	66.76	67.04	67.31	20
21	67.59	67.87	68.15	68.43	68.70	68.98	69.26	69.54	69.81	70.09	21
22	70.37	70.65	70.93	71.20	71.48	71.76	72.04	72.31	72.59	72.87	22
23	73.15	73.43	73.70	73.98	74.26	74.54	74.81	75.09	75.37	75.65	23
24	75.93	76.20	76.48	76.76	77.04	77.31	77.59	77.87	78.15	78.43	24
25	78.70	78.98	79.26	79.54	79.81	80.09	80.37	80.65	80.93	81.20	25
26	81.48	81.76	82.04	82.31	82.59	82.87	83.15	83.43	83.70	83.98	26
27	84.26	84.54	84.81	85.09	85.37	85.65	85.93	86.20	86.48	86.76	27
28	87.04	87.31	87.59	87.87	88.15	88.43	88.70	88.98	89.26	89.54	28
29	89.81	90.09	90.37	90.65	90.93	91.20	91.48	91.76	92.04	92.31	29
30	92.59	92.87	93.15	93.43	93.70	93.98	94.26	94.54	94.81	95.09	30
31	95.37	95.65	95.93	96.20	96.48	96.76	97.04	97.31	97.59	97.87	31
32	98.15	98.43	98.70	98.98	99.26	99.54	99.81	100.09	100.37	100.65	32
33	100.93	101.20	101.48	101.76	102.04	102.31	102.59	102.87	103.15	103.43	33
34	103.70	103.98	104.26	104.54	104.81	105.09	105.37	105.65	105.93	106.20	34
35	106.48	106.76	107.04	107.31	107.59	107.87	108.15	108.43	108.70	108.98	35
36	109.26	109.54	109.81	110.09	110.37	110.65	110.93	111.20	111.48	111.76	36
37	112.04	112.31	112.59	112.87	113.15	113.43	113.70	113.98	114.26	114.54	37
38	114.81	115.09	115.37	115.65	115.93	116.20	116.48	116.76	117.04	117.31	38
39	117.59	117.87	118.15	118.43	118.70	118.98	119.26	119.54	119.81	120.09	39
40	120.37	120.65	120.93	121.20	121.48	121.76	122.04	122.31	122.59	122.87	40
41	123.15	123.43	123.70	123.98	124.26	124.54	124.81	125.09	125.37	125.65	41
42	125.93	126.20	126.48	126.76	127.04	127.31	127.59	127.87	128.15	128.43	42
43	128.70	128.98	129.26	129.54	129.81	130.09	130.37	130.65	130.93	131.20	43
44	131.48	131.76	132.04	132.31	132.59	132.87	133.15	133.43	133.70	133.98	44
45	134.26	134.54	134.81	135.09	135.37	135.65	135.93	136.20	136.48	136.76	45
46	137.04	137.31	137.59	137.87	138.15	138.43	138.70	138.98	139.26	139.54	46
47	139.81	140.09	140.37	140.65	140.93	141.20	141.48	141.76	142.04	142.31	47
48	142.59	142.87	143.15	143.43	143.70	143.98	144.26	144.54	144.81	145.09	48
49	145.37	145.65	145.93	146.20	146.48	146.76	147.04	147.31	147.59	147.87	49
50	148.15	148.43	148.70	148.98	149.26	149.54	149.81	150.09	150.37	150.65	50
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	

TABLE NO. III.

Level Cross Sections.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 14 feet wide. Side slopes 1½ to 1.

Height	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Height
0	0.0	5.2	10.6	16.1	21.6	27.3	33.1	39.0	45.0	51.2	0
1	57.4	63.8	70.2	76.8	83.5	90.3	97.2	104.2	111.3	118.6	1
2	125.9	133.4	141.0	148.7	156.4	164.4	172.4	180.5	188.7	197.1	2
3	205.6	214.1	222.8	231.6	240.5	249.5	258.7	267.9	277.3	286.7	3
4	296.3	306.0	315.8	325.7	335.7	345.8	356.1	366.4	376.9	387.5	4
5	398.2	408.9	419.9	430.9	442.0	453.2	464.6	476.1	487.6	499.3	5
6	511.1	523.0	535.0	547.2	559.4	571.8	584.2	596.8	609.5	622.3	6
7	635.2	648.2	661.3	674.6	687.9	701.4	715.0	728.7	742.4	756.4	7
8	770.4	784.5	798.7	813.1	827.6	842.1	856.8	871.6	886.5	901.5	8
9	916.7	931.9	947.3	962.7	978.3	994.0	1009.8	1025.7	1041.7	1057.8	9
10	1074.1	1090.4	1106.9	1123.5	1140.2	1156.9	1173.9	1190.9	1208.0	1225.2	10
11	1242.6	1260.1	1277.6	1295.3	1313.1	1331.0	1349.0	1367.2	1385.4	1403.8	11
12	1422.2	1440.8	1459.5	1478.3	1497.2	1516.2	1535.3	1554.6	1573.9	1593.4	12
13	1613.0	1632.7	1652.4	1672.4	1692.4	1712.5	1732.7	1753.1	1773.6	1794.1	13
14	1814.8	1835.6	1856.5	1877.5	1898.7	1919.9	1941.3	1962.7	1984.3	2006.0	14
15	2027.8	2049.7	2071.7	2093.8	2116.1	2138.4	2160.9	2183.5	2206.2	2228.9	15
16	2251.9	2274.9	2298.0	2321.2	2344.6	2368.1	2391.6	2415.3	2439.1	2463.0	16
17	2487.0	2511.2	2535.4	2559.8	2584.2	2608.8	2633.5	2658.3	2683.2	2708.2	17
18	2733.3	2758.6	2783.9	2809.4	2835.0	2860.7	2886.4	2912.4	2938.4	2964.5	18
19	2990.7	3017.1	3043.6	3070.1	3096.8	3123.6	3150.5	3177.5	3204.7	3231.9	19
20	3259.3	3286.7	3314.3	3342.0	3369.8	3397.7	3425.7	3453.8	3482.1	3510.4	20
21	3538.9	3567.5	3596.2	3624.9	3653.9	3682.9	3712.0	3741.2	3770.6	3800.1	21
22	3829.6	3859.3	3889.1	3919.0	3949.0	3979.2	4009.4	4039.8	4070.2	4100.8	22
23	4131.5	4163.3	4193.2	4224.2	4255.3	4286.6	4317.9	4349.4	4381.0	4412.7	23
24	4444.4	4476.4	4508.4	4540.5	4572.7	4605.1	4637.6	4670.1	4702.8	4735.6	24
25	4768.5	4801.5	4834.7	4867.9	4901.3	4934.7	4968.3	5002.0	5035.8	5069.7	25
26	5103.7	5137.8	5172.1	5206.4	5240.9	5275.5	5310.2	5344.9	5379.9	5414.9	26
27	5450.0	5485.2	5520.6	5556.1	5591.6	5627.3	5663.1	5699.0	5735.0	5771.2	27
28	5807.4	5843.8	5880.2	5916.8	5953.5	5990.3	6027.2	6064.2	6101.3	6138.6	28
29	6175.9	6213.4	6251.0	6288.7	6326.4	6364.4	6402.4	6440.5	6478.7	6517.1	29
30	6555.6	6594.1	6632.8	6671.6	6710.5	6749.5	6788.7	6827.9	6867.3	6906.7	30
31	6946.3	6986.0	7025.8	7065.7	7105.7	7145.8	7186.1	7226.4	7266.9	7307.5	31
32	7348.2	7388.9	7429.9	7470.9	7512.0	7553.2	7594.6	7636.1	7677.6	7719.3	32
33	7761.1	7803.0	7845.0	7887.2	7929.4	7971.8	8014.2	8056.8	8099.5	8142.3	33
34	8185.2	8228.2	8271.3	8314.6	8357.9	8401.4	8445.0	8488.7	8532.4	8576.4	34
35	8620.4	8664.5	8708.7	8753.1	8797.6	8842.1	8886.8	8931.6	8976.5	9021.5	35
36	9066.7	9111.9	9157.3	9202.7	9248.3	9294.0	9339.8	9385.7	9431.7	9477.8	36
37	9524.1	9570.4	9616.9	9663.5	9710.2	9756.9	9803.9	9850.9	9898.0	9945.2	37
38	9992.6	10040.1	10087.6	10135.3	10183.1	10231.0	10279.0	10327.2	10375.4	10423.8	38
39	10472.2	10520.8	10569.5	10618.3	10667.2	10716.2	10765.3	10814.6	10863.9	10913.4	39
40	10963.0	11012.7	11062.4	11112 4	11162.4	11212.5	11262.7	11313.1	11363.6	11414.1	40
41	11464.8	11515.6	11566.5	11617.5	11668.7	11719.9	11771.3	11822.7	11874.3	11926.0	41
42	11977.8	12029.7	12081.7	12133.8	12186.1	12238.4	12290.9	12343.5	12396.2	12448.9	42
43	12501.9	12554.9	12608.0	12661.2	12714.6	12768.1	12821.6	12875.3	12929.1	12988.0	43
44	13037.0	13091.2	13145.4	13199.8	13254.2	13308.8	13363.5	13418.3	13473.2	13528.2	44
45	13583.3	13638.6	13693.9	13749.4	13805.0	13860.7	13916.4	13972.4	14028.4	14084.5	45
46	14140.7	14197.1	14253.6	14310.1	14366.8	14423.6	14480.5	14537.5	14594.7	14651.9	46
47	14709.3	14766.7	14824.3	14882.0	14939.8	14997.7	15055.7	15113.8	15172.1	15230.4	47
48	15288.9	15347.5	15406.2	15464 9	15523.9	15582.9	15642.0	15701.2	15760.6	15820.1	48
49	15879.6	15939.3	15999.1	16059.0	16119.0	16179.2	16239.4	16299.8	16360.2	16420.8	49
50	16481.5	16542.3	16603.2	16664.2	16725.3	16786.6	16847.9	16909.4	16971.0	17032.7	50
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	

TABLE NO. IV.

Side Triangles.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 14 feet wide. Side slopes 1½ to 1.

Centre. Height.	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Centre. Height.
0	12.96	13.24	13.52	13.80	14.07	14.35	14.63	14.91	15.19	15.46	0
1	15.74	16.02	16.30	16.57	16.85	17.13	17.41	17.69	17.96	18.24	1
2	18.52	18.80	19.07	19.35	19 63	19.91	20.19	20.46	20.74	21.02	2
3	21.30	21.57	21.85	22.13	22.41	22.69	22.96	23.24	23.52	23.80	3
4	24.07	24.35	24.63	24.91	25.19	25.46	25.74	26.02	26.30	26.57	4
5	26.85	27.13	27.41	27.69	27.96	28.24	28.52	28.80	29.07	29.35	5
6	29.63	29.91	30.19	30.46	30.74	31.02	31.30	31.57	31.85	32.13	6
7	32.41	32.69	32.96	33.24	33.52	33.80	34.07	34.35	34.63	34.91	7
8	35.19	35.46	35.74	36.02	36.30	36.57	36.85	37.13	37.41	37.69	8
9	37.96	38.24	38.52	38.80	39.07	39.35	39.63	39.91	40.19	40.46	9
10	40.74	41.02	41.30	41.57	41.85	42.13	42.41	42.69	42.96	43.24	10
11	43.52	43.80	44.07	44.35	44.63	44.91	45.19	45.46	45.74	46.02	11
12	46.30	46.57	46.85	47.13	47.41	47.69	47.96	48.24	48.52	48.80	12
13	49.07	49.35	49.63	49.91	50.19	50.46	50.74	51.02	51.30	51.57	13
14	51.85	52.13	52.41	52.69	52.96	53.24	53.52	53.80	54.07	54.35	14
15	54.63	54.91	55.19	55.46	55.74	56.02	56.30	56.57	56.85	57.13	15
16	57.41	57.69	57.96	58.24	58.52	58.80	59.07	59.35	59.63	59.91	16
17	60.19	60.46	60.74	61.02	61.30	61.57	61.85	62.13	62.41	62.69	17
18	62.96	63.24	63.52	63.80	64.07	64.35	64.63	64.91	65.19	65.46	18
19	65.74	66.02	66.30	66.57	66.85	67.13	67.41	67.69	67.96	68.24	19
20	68.52	68.80	69.07	69.35	69.63	69.91	70.19	70.46	70.74	71.02	20
21	71.30	71.57	71.85	72.13	72.41	72.69	72.96	73.24	73.52	73.80	21
22	74.07	74.35	74.63	74.91	75.19	75.46	75.74	76.02	76.30	76.57	22
23	76.85	77.13	77.41	77.69	77.96	78.24	78.52	78.80	79.07	79.35	23
24	79.63	79.91	80.19	80.46	80.74	81.02	81.30	81.57	81.85	82.13	24
25	82.41	82.69	82.96	83.24	83.52	83.80	84.07	84.35	84.63	84.91	25
26	85.19	85.46	85.74	86.02	86.30	86.57	86.85	87.13	87.41	87.69	26
27	87.96	88.24	88.52	88.80	89.07	89.35	89.63	89.91	90.19	90.46	27
28	90.74	91.02	91.30	91.57	91.85	92.13	92.41	92.69	92.96	93.24	28
29	93.52	93.80	94.07	94.35	94.63	94.91	95.19	95.46	95.74	96.02	29
30	96.30	96.57	96.85	97.13	97.41	97.69	97.96	98.24	98.52	98.80	30
31	99.07	99.35	99.63	99.91	100.19	100.46	100.74	101.02	101.30	101.57	31
32	101.85	102.13	102.41	102.69	102.96	103.24	103.52	103.80	104.07	104.35	32
33	104.63	104.91	105.19	105.46	105.74	106.02	106.30	106.57	106.85	107.13	33
34	107.41	107.69	107.96	108.24	108.52	108.80	109.07	109.35	109.63	109.91	34
35	110.19	110.46	110.74	111.02	111.30	111.57	111.85	112.13	112.41	112.69	35
36	112.96	113.24	113.52	113.80	114.07	114.35	114.63	114.91	115.19	115.46	36
37	115.74	116.02	116.30	116.57	116.85	117.13	117.41	117.69	117.96	118.24	37
38	118.52	118.80	119.07	119.35	119.63	119.91	120.19	120.46	120.74	121.02	38
39	121.30	121.57	121.85	122.13	122.41	122.69	122.96	123.24	123.52	123.80	39
40	124.07	124.35	124.63	124.91	125.19	125.46	125.74	126.02	126.30	126.57	40
41	126.85	127.13	127.41	127.69	127.96	128.24	128.52	128.80	129.07	129.35	41
42	129.63	129.91	130.19	130.46	130.74	131.02	131.30	131.57	131.85	132.13	42
43	132.41	132.69	132.96	133.24	133.52	133.80	134.07	134.35	134.63	134.91	43
44	135.19	135.46	135.74	136.02	136.30	136.57	136.85	137.13	137.41	137.69	44
45	137.96	138.24	138.52	138.80	139.07	139.35	139.63	139.91	140.19	140.46	45
46	140.74	141.02	141.30	141.57	141.85	142.13	142.41	142.69	142.96	143.24	46
47	143.52	143.80	144.07	144.35	144.63	144.91	145.19	145.46	145.74	146.02	47
48	146.30	146.57	146.85	147.13	147.41	147.69	147.96	148.24	148.52	148.80	48
49	149.07	149.35	149.63	149.91	150.19	150.46	150.74	151.02	151.30	151.57	49
50	151.85	152.13	152.41	152.69	152.96	153.24	153.52	153.80	154.07	154.35	50
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	

TABLE NO. V.

Level Cross Sections.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 18 feet wide. Side slopes 1½ to 1.

Height.	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Height.
0	0.0	6.7	13.6	20.5	27.6	34.7	42.0	49.4	56.9	64.5	0
1	72.2	80.1	88.0	96.1	104.2	112.5	120.9	129.4	138.0	146.7	1
2	155.6	164.5	173.6	182.7	192.0	201.4	210.9	220.5	230.2	240.1	2
3	250.0	260.1	270.2	280.5	290.9	301.4	312.0	322.7	333.6	344.5	3
4	355.6	366.7	378.0	389.4	400.9	412.5	424.2	436.1	448.0	460.1	4
5	472.2	484.5	496.9	509.4	522.0	534.7	547.6	560.5	573.6	586.7	5
6	600.0	613.4	626.9	640.5	654.2	668.1	682.0	696.1	710.2	724.5	6
7	738.9	753.4	768.0	782.7	797.6	812.5	827.6	842.7	858.0	873.4	7
8	888.9	904.5	920.2	936.1	952.0	968.1	984.2	1000.5	1016.9	1033.4	8
9	1050.0	1066.7	1083.6	1100.5	1117.6	1134.7	1152.0	1169.4	1186.9	1204.5	9
10	1222.2	1240.1	1258.0	1276.1	1294.2	1312.5	1330.9	1349.4	1368.0	1386.7	10
11	1405.6	1424.5	1443.6	1462.7	1482.0	1501.4	1520.9	1540.5	1560.2	1580.1	11
12	1600.0	1620.1	1640.2	1660.5	1680.9	1701.4	1722.0	1742.7	1763.6	1784.5	12
13	1805.6	1826.7	1848.0	1869.4	1890.9	1912.5	1934.2	1956.1	1978.0	2000.1	13
14	2022.2	2044.5	2066.9	2089.4	2112.0	2134.7	2157.6	2180.5	2203.6	2226.7	14
15	2250.0	2273.4	2296.9	2320.5	2344.2	2368.1	2392.0	2416.1	2440.2	2464.5	15
16	2488.9	2513.4	2538.0	2562.7	2587.6	2612.5	2637.6	2662.7	2688.0	2713.4	16
17	2738.9	2764.5	2790.2	2816.1	2842.0	2868.1	2894.2	2920.5	2946.9	2973.4	17
18	3000.0	3026.7	3053.6	3080.5	3107.6	3134.7	3162.0	3189.4	3216.9	3244.5	18
19	3272.2	3300.1	3328.0	3356.1	3384.2	3412.5	3440.9	3469.4	3498.0	3526.7	19
20	3555.6	3584.5	3613.6	3642.7	3672.0	3701.4	3730.9	3760.5	3790.2	3820.1	20
21	3850.0	3880.1	3910.2	3940.5	3970.9	4001.4	4032.0	4062.7	4093.6	4124.5	21
22	4155.6	4186.7	4218.0	4249.4	4280.9	4312.5	4344.2	4376.1	4408.0	4440.1	22
23	4472.2	4504.5	4536.9	4569.4	4602.0	4634.7	4667.6	4700.5	4733.6	4766.7	23
24	4800.0	4833.4	4866.9	4900.5	4934.2	4968.1	5002.0	5036.1	5070.2	5104.5	24
25	5138.9	5173.4	5208.0	5242.7	5277.6	5312.5	5347.6	5382.7	5418.0	5453.4	25
26	5488.9	5524.5	5560.2	5596.1	5632.0	5668.1	5704.2	5740.5	5776.9	5813.4	26
27	5850.0	5886.7	5923.6	5960.5	5997.6	6034.7	6072.0	6109.4	6146.9	6184.5	27
28	6222.2	6260.1	6298.0	6336.1	6374.2	6412.5	6450.9	6489.4	6528.0	6566.7	28
29	6605.6	6644.5	6683.6	6722.7	6762.0	6801.4	6840.9	6880.5	6920.2	6960.1	29
30	7000.0	7040.1	7080.2	7120.5	7160.9	7201.4	7242.0	7282.7	7323.6	7364.5	30
31	7405.6	7446.7	7488.0	7529.4	7570.9	7612.5	7654.2	7696.1	7738.0	7780.1	31
32	7822.2	7864.5	7906.9	7949.4	7992.0	8034.7	8077.6	8120.5	8163.6	8206.7	32
33	8250.0	8293.4	8336.9	8380.5	8424.2	8468.1	8512.0	8556.1	8600.2	8644.5	33
34	8688.9	8733.4	8778.0	8822.7	8867.6	8912.5	8957.6	9002.7	9048.0	9093.4	34
35	9138.9	9184.5	9230.2	9276.1	9322.0	9368.1	9414.2	9460.5	9506.9	9553.4	35
36	9600.0	9646.7	9693.6	9740.5	9787.6	9834.7	9882.0	9929.4	9976.9	10024.5	36
37	10073.2	10120.1	10168.0	10216.1	10264.2	10312.5	10360.9	10409.4	10458.0	10506.7	37
38	10555.6	10604.5	10653.6	10702.7	10752.0	10801.4	10850.9	10900.5	10950.2	11000.1	38
39	11050.0	11100.1	11150.2	11200.5	11250.9	11301.4	11352.0	11402.7	11453.6	11504.5	39
40	11555.6	11606.7	11658.0	11709.4	11760.9	11812.5	11864 2	11916.1	11968.0	12020.1	40
41	12072.2	12124.5	12176.9	12229.4	12282.0	12334.7	12387.6	12440.5	12493.6	12546.7	41
42	12600.0	12653.4	12706.9	12760.5	12814.2	12868.1	12922.0	12976.1	13030.2	13084.5	42
43	13138.9	13193.4	13248.0	13302.7	13357.6	13412.5	13467.6	13523.7	13578.0	13633.4	43
44	13688.9	13744.5	13800.2	13856.1	13912.0	13968.1	14024.2	14080.5	14136.9	14193.4	44
45	14250.0	14306.7	14363.6	14420.5	14477.6	14534.7	14592.0	14649.4	14706.9	14764.5	45
46	14822.2	14880.1	14938.0	14996.1	15054.2	15112.5	15170.9	15229.4	15288.0	15346.7	46
47	15405.6	15464.5	15523.6	15582.7	15642.0	15701.4	15760.9	15820.5	15880.2	15940.1	47
48	16000.0	16060.1	16120.2	16180.5	16240.9	16301.4	16362.0	16422.7	16483.6	16544.5	48
49	16605.6	16666.7	16728.0	16789.4	16850.9	16917.5	16974.2	17036.1	17098.0	17160.1	49
50	17222.2	17284.5	17346.9	17409.4	17482.0	17534.7	17597.6	17660.5	17723.6	17786.7	50
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	

TABLE NO. VI.

Side Triangles.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 18 feet wide. Side slope 1½ to 1.

Centre Height.	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Centre Height.
0	16.67	16.94	17.22	17.50	17.78	18.06	18.33	18.61	18.89	19.17	0
1	19.44	19.72	20.00	20.28	20.56	20.83	21.11	21.39	21.67	21.94	1
2	22.22	22.50	22.78	23.06	23.33	23.61	23.89	24.17	24.44	24.72	2
3	25.00	25.28	25.56	25.83	26.11	26.39	26.67	26.94	27.22	27.50	3
4	27.78	28.06	28.33	28.61	28.89	29.17	29.44	29.72	30.00	30.28	4
5	30.56	30.83	31.11	31.39	31.67	31.94	32.22	32.50	32.78	33.06	5
6	33.33	33.61	33.89	34.17	34.44	34.72	35.00	35.28	35.56	35.83	6
7	36.11	36.39	36.67	36.94	37.22	37.50	37.78	38.06	38.33	38.61	7
8	38.89	39.17	39.44	39.72	40.00	40.28	40.56	40.83	41.11	41.39	8
9	41.67	41.94	42.22	42.50	42.78	43.06	43.33	43.61	43.89	44.17	9
10	44.44	44.72	45.00	45.28	45.56	45.83	46.11	46.39	46.67	46.94	10
11	47.22	47.50	47.78	48.06	48.33	48.61	48.89	49.17	49.44	49.72	11
12	50.00	50.28	50.56	50.83	51.11	51 39	51.67	51.94	52.22	52.50	12
13	52.78	53.06	53.33	53.61	53.89	54.17	54.44	54.72	55.00	55.28	13
14	55.56	55.83	56.11	56.39	56.67	56.94	57.22	57.50	57.78	58.06	14
15	58.33	58.61	58.89	59.17	59.44	59.72	60.00	60.28	60.56	60.83	15
16	61.11	61.39	61.67	61.94	62.22	62.50	62.78	63.06	63.33	63.61	16
17	63.89	64.17	64.44	64.72	65.00	65.28	65.56	65.83	66.11	66.39	17
18	66.67	66.94	67.22	67.50	67.78	68.06	68.33	68.61	68.89	69.17	18
19	69.44	69.72	70.00	70.28	70.56	70.83	71.11	71.39	71.67	71.94	19
20	72.22	72.50	72.78	73.06	73.33	73.61	73.89	74.17	74.44	74.72	20
21	75.00	75.28	75.56	75.83	76.11	76.39	76.67	76.94	77.22	77.50	21
22	77.78	78.06	78.33	78.61	78.89	79.17	79.44	79.72	80.00	80.28	22
23	80.56	80.83	81.11	81.39	81.67	81.94	82.22	82.50	82.78	83.06	23
24	83.33	83.61	83.89	84.17	84.44	84.72	85.00	85.28	85.56	85.83	24
25	86.11	86.39	86.67	86.94	87.22	87.50	87.78	88.06	88.33	88.61	25
26	88.89	89.17	89.44	89.72	90.00	90.28	90.56	90.83	91.11	91.39	26
27	91.67	91.94	92.22	92.50	92.78	93.06	93.33	93.61	93.89	94.17	27
28	94.44	94 72	95.00	95.28	95.56	95.83	96.11	96.39	96.67	96.94	28
29	97.22	97.50	97.78	98.06	98.33	98.61	98.89	99.17	99.44	99.72	29
30	100.00	100.28	100.56	100.83	101.11	101.39	101.67	101.94	102.22	102.50	30
31	102.78	103.06	103.33	103.61	103.89	104.17	104.44	104.72	105.00	105.28	31
32	105.56	105.83	106.11	106.39	106.67	106.94	107.22	107.50	107.78	108.06	32
33	108.33	108.61	108.89	109.17	109.44	109.72	110.00	110.28	110.56	110.83	33
34	111.11	111.39	111.67	111.94	112.22	112.50	112.78	113.06	113.33	113.61	34
35	113.89	114.17	114.44	114.72	115.00	115.28	115.56	115.83	116.11	116.39	35
36	116.67	116.94	117.22	117.50	117.78	118.06	118.33	118.61	118.89	119.17	36
37	119.44	119.72	120.00	120.28	120.56	120.83	121.11	121.39	121.67	121.94	37
38	122.22	122.50	122.78	123.06	123.33	123.61	123.89	124.17	124.44	124.72	38
39	125.00	125.28	125.56	125.83	126.11	126.39	126.67	126.94	127.22	127.50	39
40	127.78	128.06	128.33	128.61	128.89	129.17	129.44	129.72	130.00	130.28	40
41	130.56	130.83	131.11	131.39	131.67	131.94	132.22	132.50	132.78	133.06	41
42	133.33	133.61	133.89	134.17	134.44	134.72	135.00	135.28	135.56	135.83	42
43	136.11	136.39	136.67	136.94	137.22	137.50	137.78	138.06	138.33	138.61	43
44	138.89	139.17	139.44	139.72	140.00	140.28	140.56	140.83	141.11	141.39	44
45	141.67	141.94	142.22	142.50	142.78	143.06	143.33	143.61	143.89	144.17	45
46	144.44	144.72	145.00	145 28	145.56	145.83	146.11	146.39	146.67	146.94	46
47	147.22	147.50	147.78	148.06	148.33	148.61	148.89	149.17	149.44	149.72	47
48	150.00	150.28	150.56	150.83	151.11	151.39	151.67	151.94	152.22	152.50	48
49	152.78	153.06	153.33	153.61	153.89	154.17	154.44	154.72	155.00	155.28	49
50	155.56	155.83	156.11	156.39	156.67	156.94	157.22	157.50	157.78	158.06	50
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	

TABLE NO. VII.

Level Cross Sections.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 24 feet wide. Side slope 1½ to 1.

Height	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Height
0	0.0	8.9	18.0	27.2	36.4	45.8	55.3	64.9	74.7	84.5	0
1	94.4	104.5	114.7	124.9	135.3	145.8	156.4	167.2	178.0	188.9	1
2	200.0	211.2	222.4	233.8	245.3	256.9	268.7	280.5	292.4	304.5	2
3	316.7	328.9	341.3	353.8	366.4	379.2	392.0	404.9	418.0	431.2	3
4	444.4	457.8	471.3	484.9	498.7	512.5	526.4	540.5	554.7	568.9	4
5	583.3	597.8	612.4	627.2	642.0	656.9	672.0	687.2	702.4	717.8	5
6	733.3	748.9	764.7	780.5	796.4	812.5	828.7	844.9	861.3	877.8	6
7	894.4	911.2	928.0	944.9	962.0	979.2	996.4	1013.8	1031.3	1048.9	7
8	1066.7	1084.5	1102.4	1120.5	1138.7	1156.9	1175.3	1193.8	1212.4	1231.2	8
9	1250.0	1268.9	1288.0	1307.2	1326.4	1345.8	1365.3	1384.9	1404.7	1424.5	9
10	1444.4	1464.5	1484.7	1504.9	1525.3	1545.8	1566.4	1587.2	1608.0	1628.9	10
11	1650.0	1671.2	1692.4	1713.8	1735.3	1756.9	1778.7	1800.5	1822.4	1844.5	11
12	1866.7	1888.9	1911.3	1933.8	1956.4	1979.2	2002.0	2024.9	2048.0	2071.2	12
13	2094.4	2117.8	2141.3	2164.9	2188.7	2212.5	2236.4	2260.5	2284.7	2308.9	13
14	2333.3	2357.8	2382.4	2407.2	2432.0	2456.9	2482.0	2507.2	2532.4	2557.8	14
15	2583.3	2608.9	2634.7	2660.5	2686.4	2712.5	2738.7	2764.9	2791.3	2817.8	15
16	2844.4	2871.2	2898.0	2924.9	2952.0	2979.2	3006.4	3033.8	3061.3	3088.9	16
17	3116.7	3144.5	3172.4	3200.5	3228.7	3256.9	3285.3	3313.8	3342.4	3371.2	17
18	3400.0	3428.9	3458.0	3487.2	3516.4	3545.8	3575.3	3604.9	3634.7	3664.5	18
19	3694.4	3724.5	3754.7	3784.9	3815.3	3845.8	3876.4	3907.2	3938.0	3968.9	19
20	4000.0	4031.2	4062.4	4093.8	4125.3	4156.9	4188.7	4220.5	4252.4	4284.5	20
21	4316.7	4348.9	4381.3	4413.8	4446.4	4479.2	4512.0	4544.9	4578.0	4611.2	21
22	4644.4	4677.8	4711.3	4744.9	4778.7	4812.5	4846.4	4880.5	4914.7	4948.9	22
23	4983.3	5017.8	5052.4	5087.2	5122.0	5156.9	5192.0	5227.2	5262.4	5297.8	23
24	5333.3	5368.9	5404.7	5440.5	5476.4	5512.5	5548.7	5584.9	5621.3	5657.8	24
25	5694.4	5731.2	5768.0	5804.9	5842.0	5879.2	5916.4	5953.8	5991.3	6028.9	25
26	6066.7	6104.5	6142.4	6180.5	6218.7	6256.9	6295.3	6333.8	6372.4	6411.2	26
27	6450.0	6488.9	6528.0	6567.2	6606.4	6645.8	6685.3	6724.9	6764.7	6804.5	27
28	6844.4	6884.5	6924.7	6964.9	7005.3	7045.8	7086.4	7127.2	7168.0	7208.9	28
29	7250.0	7291.2	7332.4	7373.8	7415.3	7456.9	7498.7	7540.5	7582.4	7624.5	29
30	7666.7	7708.9	7751.3	7793.8	7836.4	7879.2	7922.0	7964.9	8008.0	8051.2	30
31	8094.4	8137.8	8181.3	8224.9	8268.7	8312.5	8356.4	8400.5	8444.7	8488.9	31
32	8533.3	8577.8	8622.4	8667.2	8712.0	8756.9	8802.0	8847.2	8892.4	8937.8	32
33	8983.3	9028.9	9074.7	9120.5	9166.4	9212.5	9258.7	9304.9	9351.3	9397.8	33
34	9444.4	9491.2	9538.0	9584.9	9632.0	9679.2	9726.4	9773.8	9821.3	9868.9	34
35	9916.7	9964.5	10012.4	10060.5	10108.7	10156.9	10205.3	10253.8	10302.4	10351.2	35
36	10400.0	10448.9	10498.0	10547.2	10596.4	10645.8	10695.3	10744.9	10794.7	10844.5	36
37	10894.4	10944.5	10994.7	11044.9	11095.3	11145.8	11196.4	11247.2	11298.0	11348.9	37
38	11400.0	11451.2	11503.4	11553.8	11605.3	11656.9	11708.7	11760.5	11812.4	11864.5	38
39	11916.7	11968.9	12021.3	12073.8	12126.4	12179.2	12232.0	12284.9	12338.0	12391.2	39
40	12444.4	12497.8	12551.3	12604.9	12658.7	12712.5	12766.4	12820.5	12874.7	12928.9	40
41	12983.3	13037.8	13092.4	13147.2	13202.0	13256.9	13312.0	13367.2	13422.4	13477.8	41
42	13533.3	13588.9	13644.7	13700.5	13756.4	13812.5	13868.7	13924.9	13981.3	14037.8	42
43	14094.4	14151.2	14208.0	14264.9	14322.0	14379.2	14436.4	14493.8	14551.3	14608.9	43
44	14666.7	14724.5	14782.4	14840.5	14898.7	14956.9	15015.3	15073.8	15132.4	15191.2	44
45	15250.0	15308.9	15368.0	15427.2	15486.4	15545.8	15605.3	15664.9	15724.7	15784.5	45
46	15844.4	15904.5	15964.7	16024.9	16085.3	16145.8	16206.4	16267.2	16328.0	16388.9	46
47	16450.0	16511.2	16572.4	16633.8	16695.3	16756.9	16818.7	16880.5	16942.4	17004.5	47
48	17066.7	17128.9	17191.3	17253.8	17316.4	17379.2	17442.0	17504.9	17568.0	17631.2	48
49	17694.4	17757.8	17821.3	17884.9	17948.7	18012.5	18076.4	18140.5	18204.7	18268.9	49
50	18333.3	18397.8	18462.4	18527.2	18592.0	18656.9	18722.0	18787.2	18853.4	18917.8	50
	.0	.1	.2	.3	4.	.5	6.	.7	.8	.9	

TABLE NO. VIII.

Side Triangles.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 24 feet wide. Side slope 1½ to 1.

Centre Height.	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Centre Height.
0	22.22	22.50	22.78	23.06	23.33	23.61	23.89	24.17	24.44	24.72	0
1	25.00	25.28	25.56	25.83	26.11	26.39	26.67	26.94	27.22	27.50	1
2	27.78	28.06	28.33	28.61	28.89	29.17	29.44	29.72	30.00	30.28	2
3	30.56	30.83	31.11	31.39	31.67	31.94	32.22	32.50	32.78	33.06	3
4	33.33	33.61	33.89	34.17	34.44	34.72	35.00	35.28	35.56	35.83	4
5	36.11	36.39	36.67	36.94	37.22	37.50	37.78	38.06	38.33	38.61	5
6	38.89	39.17	39.44	39.72	40.00	40.28	40.56	40.83	41.11	41.39	6
7	41.67	41.94	42.22	42.50	42.78	43.06	43.33	43.61	43.89	44.17	7
8	44.44	44.72	45.00	45.28	45.56	45.83	46.11	46.39	46.67	46.94	8
9	47.22	47.50	47.78	48.06	48.33	48.61	48.89	49.17	49.44	49.72	9
10	50.00	50.28	50.56	50.83	51.11	51.39	51.67	51.94	52.22	52.50	10
11	52.78	53.06	53.33	53.61	53.89	54.17	54.44	54.72	55.00	55.28	11
12	55.56	55.83	56.11	56.39	56.67	56.94	57.22	57.50	57.78	58.06	12
13	58.33	58.61	58.89	59.17	59.44	59.72	60.00	60.28	60.56	60.83	13
14	61.11	61.39	61.67	61.94	62.22	62.50	62.78	63.06	63.33	63.61	14
15	63.89	64.17	64.44	64.72	65.00	65.28	65.56	65.83	66.11	66.39	15
16	66.67	66.94	67.22	67.50	67.78	68.06	68.33	68.61	68.89	69.17	16
17	69.44	69.72	70.00	70.28	70.56	70.83	71.11	71.39	71.67	71.94	17
18	72.22	72.50	72.78	73.06	73.33	73.61	73.89	74.17	74.44	74.72	18
19	75.00	75.28	75.56	75.83	76.11	76.39	76.67	76.94	77.22	77.50	19
20	77.78	78.06	78.33	78.61	78.89	79.17	79.44	79.72	80.00	80.28	20
21	80.56	80.83	81.11	81.39	81.67	81.94	82.22	82.50	82.78	83.06	21
22	83.33	83.61	83.89	84.17	84.44	84.72	85.00	85.28	85.56	85.83	22
23	86.11	86.39	86.67	86.94	87.22	87.50	87.78	88.06	88.33	88.61	23
24	88.89	89.17	89.44	89.72	90.00	90.28	90.56	90.83	91.11	91.39	24
25	91.67	91.94	92.22	92.50	92.78	93.06	93.33	93.61	93.89	94.17	25
26	94.44	94.72	95.00	95.28	95.56	95.83	96.11	96.39	96.67	96.94	26
27	97.22	97.50	97.78	98.06	98.33	98.61	98.89	99.17	99.44	99.72	27
28	100.00	100.28	100.56	100.83	101.11	101.39	101.67	101.94	102.22	102.50	28
29	102.78	103.06	103.33	103.61	103.89	104.17	104.44	104.72	105.00	105.28	29
30	105.56	105.83	106.11	106.39	106.67	106.94	107.22	107.50	107.78	108.06	30
31	108.33	108.61	108.89	109.17	109.44	109.72	110.00	110.28	110.56	110.83	31
32	111.11	111.39	111.67	111.94	112.22	112.50	112.78	113.06	113.33	113.61	32
33	113.89	114.17	114.44	114.72	115.00	115.28	115.56	115.83	116.11	116.39	33
34	116.67	116.94	117.22	117.50	117.78	118.06	118.33	118.61	118.89	119.17	34
35	119.44	119.72	120.00	120.28	120.56	120.83	121.11	121.39	121.67	121.94	35
36	122.22	122.50	122.78	123.06	123.33	123.61	123.89	124.17	124.44	124.72	36
37	125.00	125.28	125.56	125.83	126.11	126.39	126.67	126.94	127.22	127.50	37
38	127.78	128.06	128.33	128.61	128.89	129.17	129.44	129.72	130.00	130.28	38
39	130.56	130.83	131.11	131.39	131.67	131.94	132.22	132.50	132.78	133.06	39
40	133.33	133.61	133.89	134.17	134.44	134.72	135.00	135.28	135.56	135 83	40
41	136.11	136.39	136.67	136.94	137.22	137.50	137.78	138.06	138.33	138.61	41
42	138.89	139.17	139.44	139.72	140.00	140.28	140.56	140.83	141.11	141.39	42
43	141.67	141.94	142.22	142.50	142.78	143.06	143.33	143.61	143.89	144.17	43
44	144.44	144.72	145.00	145.28	145.56	145.83	146.11	146.39	146.67	146.94	44
45	147.22	147.50	147.78	148.06	148.33	148.61	148.89	149.17	149.44	149.72	45
46	150.00	150.28	150.56	150.83	151.11	151.39	151.67	151.94	152.22	152.50	46
47	152.78	153.06	153.33	153.61	153.89	154.17	154.44	154.72	155.00	155.28	47
48	155.56	155.83	156.11	156.39	156.67	156.94	157.22	157.50	157.78	158.06	48
49	158.33	158.61	158.89	159.17	159.44	159.72	160.00	160.28	160.56	160.83	49
50	161.11	161.39	161.67	161.94	162.22	162.50	162.78	163.06	163.33	163.61	50
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	

TABLE NO. IX.

Level Cross Sections.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 26 feet wide. Side slopes 1½ to 1.

Height.	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Height.
0	0.0	9.7	19.5	29.4	39.4	49.5	59.8	70.1	80.6	91.2	0
1	101.9	112.6	123.6	134.6	145.7	156.9	168.3	179.8	191.3	203.0	1
2	214.8	226.7	238.7	250.9	263.1	275.5	287.9	300.5	313.2	326.0	2
3	338.9	351.9	365.0	378.3	391.6	405.1	418.7	432.4	446.1	460.1	3
4	474.1	488.2	502.4	516.8	531.3	545.8	560.5	575.3	590.2	605.2	4
5	620.4	635.6	651.0	666.4	682.0	697.7	713.5	729.4	745.4	761.5	5
6	777.8	794.1	810.6	827.2	843.9	860.6	877.6	894.6	911.7	928.9	6
7	946.3	963.8	981.3	999.0	1016.8	1034.7	1052.7	1070.9	1089.1	1107.5	7
8	1125.9	1144.5	1163.2	1182.0	1200.9	1219.9	1239.0	1258.3	1277.6	1297.1	8
9	1316.7	1336.4	1356.1	1376.1	1396.1	1416.2	1436.4	1456.8	1477.3	1497.8	9
10	1518.5	1539.3	1560.2	1581.2	1602.4	1623.6	1645.0	1666.4	1688.0	1709.7	10
11	1731.5	1753.4	1775.4	1797.5	1819.8	1842.1	1864.6	1887.2	1909.9	1932.6	11
12	1955.6	1978.6	2001.7	2024.9	2048.3	2071.8	2095.3	2119.0	2142.8	2166.7	12
13	2190.7	2214.9	2239.1	2263.5	2287.9	2312.5	2337.2	2362.0	2386.9	2411.9	13
14	2437.0	2462.3	2487.6	2513.1	2538.7	2564.4	2590.1	2616.1	2642.1	2668.2	14
15	2694.4	2720.8	2747.3	2773.8	2800.5	2827.3	2854.2	2881.2	2908.4	2935.6	15
16	2963.0	2990.4	3018.0	3045.7	3073.5	3101.4	3129.4	3157.5	3185.8	3214.1	16
17	3242.6	3271.2	3299.9	3328.6	3357.6	3386.6	3415.7	3444.9	3474.3	3503.8	17
18	3533.3	3563.0	3592.8	3622.7	3652.7	3682.9	3713.1	3743.5	3773.9	3804.5	18
19	3835.2	3866.0	3896.9	3927.9	3959.0	3990.3	4021.6	4053.1	4084.7	4116.4	19
20	4148.1	4180.1	4212.1	4244.2	4276.4	4308.8	4341.3	4373.8	4406.5	4439.3	20
21	4472.2	4505.2	4538.4	4571.6	4605.0	4638.4	4672.0	4705.7	4739.5	4773.4	21
22	4807.4	4841.5	4875.8	4910.1	4944.6	4979.2	5013.9	5048.6	5083.6	5118.6	22
23	5153.7	5188.9	5224.3	5259.8	5295.3	5331.0	5366.8	5402.7	5438.7	5474.9	23
24	5511.1	5547.5	5583.9	5620.5	5657.2	5694.0	5730.9	5767.9	5805.0	5842.3	24
25	5879.6	5917.1	5954.7	5992.4	6030.1	6068.1	6106.1	6144.2	6182.4	6220.8	25
26	6259.3	6297.8	6336.5	6375.3	6414.2	6453.2	6492.4	6531.6	6571.0	6610.4	26
27	6650.0	6689.7	6729.5	6769.4	6809.4	6849.5	6889.8	6930.1	6970.6	7011.2	27
28	7051.9	7092.6	7133.6	7174.6	7215.7	7256.9	7298.3	7339.8	7381.3	7423.0	28
29	7464.8	7506.7	7548.7	7590.9	7633.1	7675.5	7717.9	7760.5	7803.2	7846.0	29
30	7888.9	7931.9	7975.0	8018.3	8061.6	8105.1	8148.7	8192.4	8236.1	8280.1	30
31	8324.1	8368.2	8412.4	8456.8	8501.3	8545.8	8590.5	8635.3	8680.2	8725.2	31
32	8770.4	8815.6	8861.0	8906.4	8952.0	8997.7	9043.5	9089.4	9135.4	9181.5	32
33	9227.8	9274.1	9320.6	9367.2	9413.9	9460.6	9507.6	9554.6	9601.7	9648.9	33
34	9696.3	9743.8	9791.3	9839.0	9886.8	9934.7	9982.7	10030.9	10079.1	10127.5	34
35	10175.9	10224.5	10273.2	10322.0	10370.9	10419.9	10469.0	10518.3	10567.6	10617.1	35
36	10666.7	10716.4	10766.1	10816.1	10866.1	10916.2	10966.4	11016.8	11067.3	11117.8	36
37	11168.5	11219.3	11270.2	11321.2	11372.4	11423.6	11475.0	11526.4	11578.0	11629.7	37
38	11681.5	11733.4	11785.4	11837.5	11889.8	11942.1	11994.6	12047.2	12099.9	12152.6	38
39	12205.6	12258.6	12311.7	12364.9	12418.3	12471.8	12525.3	12579.0	12632.8	12686.7	39
40	12740.7	12794.9	12849.1	12903.5	12957.9	13012.5	13067.2	13122.0	13176.9	13231.9	40
41	13287.0	13342.3	13397.6	13453.1	13508.7	13564.4	13620.1	13676.1	13732.1	13788.2	41
42	13844.4	13900.8	13957.3	14013.8	14070.5	14127.8	14184.2	14241.2	14298.4	14355.6	42
43	14413.0	14470.4	14528.0	14585.7	14643.5	14701.4	14759.4	14817.5	14875.8	14934.1	43
44	14992.6	15051.2	15109.9	15168.6	15227.6	15286.6	15345.7	15404.9	15464.3	15523.8	44
45	15583.3	15643.0	15702.8	15762.7	15822.7	15882.9	15943.1	16003.5	16063.9	16124.5	45
46	16185.2	16246.0	16306.9	16367.9	16429.0	16490.3	16551.6	16613.1	16674.7	16736.4	46
47	16798.1	16860.1	16922.1	16984.2	17046.4	17108.8	17171.3	17233.8	17296.5	17359.3	47
48	17422.2	17485.2	17548.4	17611.6	17675.0	17738.4	17802.0	17865.7	17929.5	17993.4	48
49	18057.4	18121.5	18185.8	18250.1	18314.6	18379.2	18443.9	18508.6	18573.6	18638.6	49
50	18703.7	18768.9	18834.3	18899.8	18965.3	19031.0	19096.8	19162.7	19228.7	19294.9	50
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	

TABLE NO. X.

Side Triangles.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 26 feet wide. Side slopes 1½ to 1.

Centre Height.	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Centre Height.
0	24.07	24.35	24.63	24.91	25.19	25.46	25.74	26.02	26.30	26.57	0
1	26.85	27.13	27.41	27.69	27.96	28.24	28.52	28.80	29.07	29.35	1
2	29.63	29.91	30.19	30.46	30.74	31.02	31.30	31.57	31.85	32.13	2
3	32.41	32.69	32.96	33.24	33.52	33.80	34.07	34.35	34.63	34.91	3
4	35.19	35.46	35.74	36.02	36.30	36.57	36.85	37.13	37.41	37.69	4
5	37.96	38.24	38.52	38.80	39.07	39.35	39.63	39.91	40.19	40.46	5
6	40.74	41.02	41.30	41.57	41.85	42.13	42.41	42.69	42.96	43.24	6
7	43.52	43.80	44.07	44.35	44.63	44.91	45.19	45.46	45.74	46.02	7
8	46.30	46.57	46.85	47.13	47.41	47.69	47.96	48.24	48.52	48.80	8
9	49.07	49.35	49.63	49.91	50.19	50.46	50.74	51.02	51.30	51.57	9
10	51.85	52.13	52.41	52.69	52.96	53.24	53.52	53.80	54.07	54.35	10
11	54.63	54.91	55.19	55.46	55.74	56.02	56.30	56.57	56.85	57.13	11
12	57.41	57.69	57.96	58.24	58.52	58.80	59.07	59.35	59.63	59.91	12
13	60.19	60.46	60.74	61.02	61.30	61.57	61.85	62.13	62.41	62.69	13
14	62.96	63.24	63.52	63.80	64.07	64.35	64.63	64.91	65.19	65.46	14
15	65.74	66.02	66.30	66.57	66.85	67.13	67.41	67.69	67.96	68.24	15
16	68.52	68.80	69.07	69.35	69.63	69.91	70.19	70.46	70.74	71.02	16
17	71.30	71.57	71.85	72.13	72.41	72.69	72.96	73.24	73.52	73.80	17
18	74.07	74.35	74.63	74.91	75.19	75.46	75.74	76.02	76.30	76.57	18
19	76.85	77.13	77.41	77.69	77.96	78.24	78.52	78.80	79.07	79.35	19
20	79.63	79.91	80.19	80.46	80.74	81.02	81.30	81.57	81.85	82.13	20
21	82.41	82.69	82.96	83.24	83.52	83.80	84.07	84.35	84.63	84.91	21
22	85.19	85.46	85.74	86.02	86.30	86.57	86.85	87.13	87.41	87.69	22
23	87.96	88.24	88.52	88.80	89.07	89.35	89.63	89.91	90.19	90.46	23
24	90.74	91.02	91.30	91.57	91.85	92.13	92.41	92.69	92.96	93.24	24
25	93.52	93.80	94.07	94.35	94.63	94.91	95.19	95.46	95.74	96.02	25
26	96.30	96.57	96.85	97.13	97.41	97.69	97.96	98.24	98.52	98.80	26
27	99.07	99.35	99.63	99.91	100.19	100.46	100.74	101.02	101.30	101.57	27
28	101.85	102.13	102.41	102.69	102.96	103.24	103.52	103.80	104.07	104.35	28
29	104.63	104.91	105.19	105.46	105.74	106.02	106.30	106.57	106.85	107.13	29
30	107.41	107.69	107.96	108.24	108.52	108.80	109.07	109.35	109.63	109.91	30
31	110.19	110.46	110.74	111.02	111.30	111.57	111.85	112.13	112.41	112.69	31
32	112.96	113.24	113.52	113.80	114.07	114.35	114.63	114.91	115.19	115.46	32
33	115.74	116.02	116.30	116.57	116.85	117.13	117.41	117.69	117.96	118.24	33
34	118.52	118.80	119.07	119.35	119.63	119.91	120.19	120.46	120.74	121.02	34
35	121.30	121.57	121.85	122.13	122.41	122.69	122.96	123.24	123.52	123.80	35
36	124.07	124.35	124.63	124.91	125.19	125.46	125.74	126.02	126.30	126.57	36
37	126.85	127.13	127.41	127.69	127.96	128.24	128.52	128.80	129.07	129.35	37
38	129.63	129.91	130.19	130.46	130.74	131.02	131.30	131.57	131.85	132.13	38
39	132.41	132.69	132.96	133.24	133.52	133.80	134.07	134.35	134.63	134.91	39
40	135.19	135.46	135.74	136.02	136.30	136.57	136.85	137.13	137.41	137.69	40
41	137.96	138.24	138.52	138.80	139.07	139.35	139.63	139.91	140.19	140.46	41
42	140.74	141.02	141.30	141.57	141.85	142.13	142.41	142.69	142.96	143.24	42
43	143.52	143.80	144.07	144.35	144.63	144.91	145.19	145.46	145.74	146.02	43
44	146.30	146.57	146.85	147.13	147.41	147.69	147.96	148.24	148.52	148.80	44
45	149.07	149.35	149.63	149.91	150.19	150.46	150.74	151.02	151.30	151.57	45
46	151.85	152.13	152.41	152.69	152.96	153.24	153.52	153.80	154.07	154.35	46
47	154.63	154.91	155.19	155.46	155.74	156.02	156.30	156.57	156.85	157.13	47
48	157.41	157.69	157.96	158.24	158.52	158.80	159.07	159.35	159.63	159.91	48
49	160.19	160.46	160.74	161.02	161.30	161.57	161.85	162.13	162.41	162.69	49
50	162.96	163.24	163.52	163.80	164.07	164.35	164.63	164.91	165.19	165.46	50
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	

TABLE NO. XI.

Level Cross Sections.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 16 feet wide. Side slopes 1 to 1.

Height	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Height
0	0.0	6.0	12.0	18.1	24.3	30.6	36.9	43.3	49.8	56.3	0
1	63.0	69.7	76.4	83.3	90.2	97.2	104.3	111.4	118.7	126.0	1
2	133.3	140.8	148.3	155.9	163.6	171.3	179.1	187.0	195.0	203.0	2
3	211.1	219.3	227.6	235.9	244.3	252.8	261.3	270.0	278.7	287.4	3
4	296.3	305.2	314.2	323.3	332.4	341.7	351.0	360.3	369.8	379.3	4
5	388.9	398.6	408.3	418.1	428.0	438.0	448.0	458.1	468.3	478.6	5
6	488.9	499.3	509.8	520.3	531.0	541.7	552.4	563.3	574.2	585.2	6
7	596.3	607.4	618.7	630.0	641.3	652.8	664.3	675.9	687.6	699.3	7
8	711.1	723.0	735.0	747.0	759.1	771.3	783.6	795.9	808.3	820.8	8
9	833.3	846.0	858.7	871.4	884.3	897.2	910.2	923.3	936.4	949.7	9
10	963.0	976.3	989.8	1003.3	1016.9	1030.6	1044.3	1058.1	1072.0	1086.0	10
11	1100.0	1114.1	1128.3	1142.6	1156.9	1171.3	1185.8	1200.3	1215.0	1229.7	11
12	1244.4	1259.3	1274.2	1289.2	1304.3	1319.4	1334.7	1350.0	1365.3	1380.8	12
13	1396.3	1411.9	1427.6	1443.3	1459.1	1475.0	1491.0	1507.0	1523.1	1539.3	13
14	1555.6	1571.9	1588.3	1604.8	1621.3	1638.0	1654.7	1671.4	1688.3	1705.2	14
15	1722.2	1739.3	1756.4	1773.7	1791.0	1808.3	1825.8	1843.3	1860.9	1878.6	15
16	1896.3	1914.1	1932.0	1950.0	1968.0	1986.1	2004.3	2022.6	2040.9	2059.3	16
17	2077.8	2096.3	2115.0	2133.7	2152.4	2171.3	2190.2	2209.2	2228.3	2247.4	17
18	2266.7	2286.0	2305.3	2324.8	2344.3	2363.9	2383.6	2403.3	2423.1	2443.0	18
19	2463.0	2483.0	2503.1	2523.3	2543.6	2563.9	2584.3	2604.8	2625.3	2646.0	19
20	2666.7	2687.4	2708.3	2729.2	2750.2	2771.3	2792.4	2813.7	2835.0	2856.3	20
21	2877.8	2899.3	2920.9	2942.6	2964.3	2986.1	3008.0	3030.0	3052.0	3074.1	21
22	3096.3	3118.6	3140.9	3163.3	3185.8	3208.3	3231.0	3253.7	3276.4	3299.3	22
23	3322.2	3345.2	3368.3	3391.4	3414.7	3438.0	3461.3	3484.8	3508.3	3531.9	23
24	3555.6	3579.3	3603.1	3627.0	3651.0	3675.0	3699.1	3723.3	3747.6	3771.9	24
25	3796.3	3820.8	3845.3	3870.0	3894.7	3919.4	3944.3	3969.2	3994.2	4019.3	25
26	4044.4	4069.7	4095.0	4120.3	4145.8	4171.3	4196.9	4222.6	4248.3	4274.1	26
27	4300.0	4326.0	4352.0	4378.1	4404.3	4430.6	4456.9	4483.3	4509.8	4536.3	27
28	4563.0	4589.7	4616.4	4643.3	4670.2	4697.2	4724.3	4751.4	4778.7	4806.0	28
29	4833.3	4860.8	4888.3	4915.9	4943.6	4971.3	4999.1	5027.0	5055.0	5083.0	29
30	5111.1	5139.3	5167.6	5195.9	5224.3	5252.8	5281.3	5310.0	5338.7	5367.4	30
31	5396.3	5425.2	5454.2	5483.3	5512.4	5541.7	5571.0	5600.3	5629.8	5659.3	31
32	5688.9	5718.6	5748.3	5778.1	5808.0	5838.0	5868.0	5898.1	5928.3	5958.6	32
33	5988.9	6019.3	6049.8	6080.3	6111.0	6141.7	6172.4	6203.3	6234.2	6265.2	33
34	6296.3	6327.4	6358.7	6390.0	6421.3	6452.8	6484.3	6515.9	6547.6	6579 3	34
35	6611.1	6643.0	6675.0	6707.0	6739.1	6771.3	6803.6	6835.9	6868.3	6900.8	35
36	6933.3	6966.0	6998.7	7031.4	7064.3	7097.2	7130.2	7163.3	7196.4	7229.7	36
37	7263.0	7296.3	7329.8	7363.3	7396.9	7430.6	7464.3	7498.1	7532.0	7566.0	37
38	7600.0	7634.1	7668.3	7702.6	7736.9	7771.3	7805.8	7840.3	7875.0	7909.7	38
39	7944.4	7979.3	8014.2	8049.2	8084.3	8119.4	8154.7	8190.0	8225.3	8260.8	39
40	8296.3	8331.9	8367.6	8403.3	8439.1	8475.0	8511.0	8547.0	8583.1	8619.3	40
41	8655.6	8691.9	8728.3	8764.8	8801.3	8838.0	8874.7	8911.4	8948.3	8985.2	41
42	9022.2	9059.3	9096.4	9133.7	9171.0	9208 3	9245.8	9283.3	9320.9	9358.6	42
43	9396.3	9434.1	9472.0	9510.0	9548.0	9586.1	9624.3	9662.6	9700.9	9739.3	43
44	9777.8	9816.3	9855.0	9893.7	9932.4	9971.3	10010.2	10049.2	10088.3	10127.4	44
45	10166.7	10206.0	10245.3	10284.8	10324.3	10363.9	10403.6	10443.3	10483.1	10523.0	45
46	10563.0	10603.0	10643.1	10683.3	10723.6	10763.9	10804.3	10844.8	10885.3	10926.0	46
47	10966.7	11007.4	11048.3	11089.2	11130.2	11171.3	11212.4	11253.7	11295.0	11336.3	47
48	11377.8	11419.3	11460.9	11502.6	11544.3	11586.1	11628.0	11670.0	11712.0	11754.1	48
49	11796.3	11838.6	11880.9	11923.3	11965.8	12008.3	12051.0	12093.7	12136.4	12179.3	49
50	13322.2	12265.2	12308.3	12351.4	12394.7	12438.0	12481.3	12524.8	12568.3	12611.9	50
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	

TABLE NO. XII.

Side Triangles.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 16 feet wide. Side slopes 1 to 1.

Centre. Height.	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Centre. Height.
0	14.81	15.00	15.19	15.37	15.56	15.74	15.93	16.11	16.30	16.48	0
1	16.67	16.85	17.04	17.22	17.41	17.59	17.78	17.96	18.15	18.33	1
2	18.52	18.70	18.89	19.07	19.26	19.44	19.63	19.81	20.00	20.19	2
3	20.37	20.56	20.74	20.93	21.11	21.30	21.48	21.67	21.85	22.04	3
4	22.22	22.41	22.59	22.78	22.96	23.15	23.33	23.52	23.70	23.89	4
5	24.07	24.26	24.44	24.63	24.81	25.00	25.19	25.37	25.56	25.74	5
6	25.93	26.11	26 30	26.48	26.67	26.85	27.04	27.22	27.41	27.59	6
7	27.78	27.96	28.15	28.33	28.52	28.70	28.89	29.07	29.26	29.44	7
8	29.63	29.81	30.00	30.19	30.37	30.56	30.74	30.93	31.11	31.30	8
9	31.48	31.67	31.85	32.04	32.22	32.41	32.59	32.78	32.96	33.15	9
10	33.33	33.52	33.70	33.89	34.07	34.26	34.44	34.63	34.81	35 00	10
11	35.19	35.37	35.56	35.74	35.93	36.11	36.30	36.48	36.67	36.85	11
12	37.04	37.22	37.41	37.59	37.78	37.96	38.15	38.33	38.52	38.70	12
13	38.89	39.07	39.26	39.44	39.63	39.81	40.00	40.19	40.37	40.56	13
14	40.74	40.93	41.11	41.30	41.48	41.67	41.85	42.04	42.22	42.41	14
15	42.59	42.78	42.96	43.15	43.33	43.52	43.70	43.89	44.07	44.26	15
16	44.44	44.63	44.81	45.00	45.19	45.37	45.56	45.74	45.93	46.11	16
17	46.30	46.48	46.67	46.85	47.04	47.22	47.41	47.59	47.78	47.96	17
18	48.15	48.33	48.52	48.70	48.89	49.07	49.26	49.44	49.63	49.81	18
19	50.00	50.19	50.37	50.56	50.74	50.93	51.11	51.30	51.48	51.67	19
20	51.85	52.04	52.22	52.41	52.59	52.78	52.96	53.15	53.33	53.52	20
21	53.70	53.89	54.07	54.26	54.44	54.63	54.81	55.00	55.19	55.37	21
22	55.56	55.74	55.93	56.11	56.30	56.48	56.67	56.85	57.04	57.22	22
23	57.41	57.59	57.78	57.96	58.15	58.33	58.52	58.70	58.89	59.07	23
24	59.26	59.44	59.63	59.81	60.00	60.19	60.37	60.56	60.74	60.93	24
25	61.11	61.30	61.48	61.67	61.85	62.04	62.22	62.41	62.59	62.78	25
26	62.96	63.15	63.33	63.52	63.70	63.89	64.07	64.26	64.44	64.63	26
27	64.81	65.00	65.19	65.37	65.56	65.74	65.93	66.11	66.30	66.48	27
28	66.67	66.85	67.04	67.22	67.41	67.59	67.78	67.96	68.15	68.33	28
29	68.52	68.70	68.89	69.07	69.26	69.44	69.63	69.81	70.00	70.19	29
30	70.37	70.56	70.74	70.93	71.11	71.30	71.48	71.67	71.85	72.04	30
31	72.22	72.41	72.59	72.78	72.96	73.15	73.33	73.52	73.70	73.89	31
32	74.07	74.26	74.44	74.63	74.81	75.00	75.19	75.37	75.56	75.74	32
33	75.93	76.11	76.30	76.48	76.67	76.85	77.04	77.22	77.41	77.59	33
34	77.78	77.96	78.15	78.33	78.52	78.70	78.89	79.07	79.26	79.44	34
35	79.63	79.81	80.00	80.19	80.37	80.56	80.74	80.93	81.11	81.30	35
36	81.48	81.67	81.85	82.04	82.22	82.41	82.59	82.78	82.96	83.15	36
37	83.33	83.52	83.70	83.89	84.07	84.26	84.44	84.63	84.81	85.00	37
38	85.19	85.37	85.56	85.74	85.93	86.11	86.30	86.48	86.67	86.85	38
39	87.04	87.22	87.41	87.59	87.78	87.96	88.15	88.33	88.52	88.70	39
40	88.89	89.07	89.26	89.44	89.63	89.81	90.00	90.19	90.37	90.56	40
41	90.74	90.93	91.11	91.30	91.48	91.67	91.85	92.04	92.22	92.41	41
42	92.59	92.78	92.96	93.15	93.33	93.52	93.70	93.89	94.07	94.26	42
43	94.44	94.63	94.81	95.00	95.19	95.37	95.56	95.74	95.93	96.11	43
44	96.30	96.48	96.67	96.85	97.04	97.22	97.41	97.59	97.78	97.96	44
45	98.15	98.33	98.52	98.70	98.89	99.07	99.26	99.44	99.63	99.81	45
46	100.00	100.19	100.37	100.56	100.74	100.93	101.11	101.30	101.48	101.67	46
47	101.85	102.04	102.22	102.41	102.59	102.78	102.96	103.15	103.33	103.52	47
48	103.70	103.89	104.07	104.26	104.44	104.63	104.81	105.00	105.19	105.37	48
49	105.56	105.74	105.93	106.11	106.30	106.48	106.67	106.85	107.04	107.22	49
50	107.41	107.59	107.78	107.96	108.15	108.33	108.52	108.70	108.89	109.07	50
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	

TABLE NO. XIII.

Level Cross Sections.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 20 feet wide. Side slopes 1 to 1.

Height	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Height
0	0.0	7.4	15.0	22.6	30.2	38.0	45.8	53.7	61.6	69.7	0
1	77.8	86.0	94.2	102.6	111.0	119.4	128.0	136 6	145.3	154.1	1
2	163.0	171.9	180.9	190.0	199.1	208.3	217.6	227.0	236.4	246.0	2
3	255.6	265.2	275.0	284.8	294.7	304.6	314.7	324.8	335.0	345.2	3
4	355.6	366.0	376.4	387.0	397.6	408.3	419.1	430.0	440.9	451.9	4
5	463.0	474.1	485.3	496.6	508.0	519.4	531.0	542.6	554.2	566.0	5
6	577.8	589.7	601.6	613.7	625.8	638.0	650.2	662.6	675.0	687.4	6
7	700.0	712.6	725.3	738.1	751.0	763.9	776.9	790.0	803.1	816.3	7
8	829.6	843.0	856.4	870.0	883.6	897.2	911.0	924.8	938.7	952.6	8
9	966.7	980.8	995.0	1009.2	1023.6	1038.0	1052.4	1067.0	1081.6	1096.3	9
10	1111.1	1126.0	1140.9	1155.9	1171.0	1186.1	1201.3	1216.6	1232.0	1247.4	10
11	1263.0	1278.6	1294.2	1310.0	1325.8	1341.7	1357.6	1373.7	1389.8	1406.0	11
12	1422.2	1438.6	1455.0	1471.4	1488.0	1504.6	1521.3	1538.1	1555.0	1571.9	12
13	1588.9	1606.0	1623.1	1640.3	1657.6	1675.0	1692.4	1710.0	1727.6	1745.2	13
14	1763.0	1780.8	1798.7	1816.6	1834.7	1852.8	1871.0	1889.2	1907.6	1926.0	14
15	1944.4	1963.0	1981.6	2000.3	2019.1	2038.0	2056.9	2075.9	2095.0	2114.1	15
16	2133.3	2152.6	2172.0	2191.4	2211.0	2230.6	2250.2	2270.0	2289.8	2309.7	16
17	2329.6	2349.7	2369.8	2390.0	2410.2	2430.6	2451.0	2471.4	2492.(	2512.6	17
18	2533.3	2554.1	2575.0	2595.9	2616.9	2638.0	2659.1	2680.3	2701.6	2723.0	18
19	2744.4	2766.0	2787.6	2809.2	2831.0	2852.8	2874.7	2896.6	2918.7	2940.8	19
20	2963.0	2985.2	3007.6	3030.0	3052.4	3075.0	3097.6	3120.3	3143.1	3166.0	20
21	3188.9	3211.9	3235.0	3258.1	3281.3	3304.6	3328.0	3351.4	3375.0	3398.6	21
22	3422.2	3446.0	3469.8	3493.7	3517.6	3541.7	3565.8	3590.0	3614.2	3638.6	22
23	3663.0	3687.4	3712.0	3736.6	3761.3	3786.1	3811.0	3835.9	3860.9	3886.0	23
24	3911.1	3936.3	3961.6	3987.0	4012.4	4038.0	4063.6	4089.2	4115.0	4140.8	24
25	4166.7	4192.6	4218.7	4244.8	4271.0	4297.2	4323.6	4350.0	4376.4	4403.0	25
26	4429.6	4456.3	4483.1	4510.0	4536.9	4563.9	4591.0	4618.1	4645.3	4672.6	26
27	4700.0	4727.4	4755.0	4782.6	4810.2	4838.0	4865.8	4893.7	4921.6	4949.7	27
28	4977.8	5006.0	5034.2	5062.6	5091.0	5119.4	5148.0	5176.6	5205.3	5234.1	28
29	5263.0	5291.9	5320.9	5350.0	5379.1	5408.3	5437.6	5467.0	5496.4	5526.0	29
30	5555.6	5585.2	5615.0	5644.8	5674.7	5704.6	5734.7	5764.8	5795.0	5825.2	30
31	5855.6	5886.0	5916.4	5947.0	5977.6	6008.3	6039.1	6070.0	6100.9	6131.9	31
32	6163.0	6194.1	6225.3	6256.6	6288.0	6319.4	6351.0	6382.6	6414.2	6446.0	32
33	6477.8	6509.7	6541.6	6573.7	6605.8	6638.0	6670.2	6702.6	6735.0	6767.4	33
34	6800.0	6832.6	6865.3	6898.1	6931.0	6963.9	6996.9	7030.0	7063.1	7096.3	34
35	7129.6	7163.0	7196.4	7230.0	7263.6	7297.2	7331.0	7364.8	7398.7	7432.6	35
36	7466.7	7500.8	7535.0	7569.2	7603.6	7638.0	7672.4	7707.0	7741.6	7776.3	36
37	7811.1	7846.0	7880.9	7915.9	7951.0	7986.1	8021.3	8056.6	8092.0	8127.4	37
38	8163.0	8198.6	8234.2	8270.0	8305.8	8341.7	8377.6	8413.7	8449.8	8486.0	38
39	8522.2	8558.6	8595.0	8631.4	8668.0	8704.6	8741.3	8778.1	8815.0	8851.9	39
40	8888.9	8926.0	8963.1	9000.6	9037.6	9075.0	9112.4	9150.0	9187.6	9225.2	40
41	9263.0	9300.8	9338.7	9376.6	9414.7	9452.8	9491.0	9529.2	9567.6	9606.0	41
42	9644.4	9683.0	9721.6	9760.3	9799.1	9838.0	9876.9	9915.9	9955.0	9994.1	42
43	10033.3	10072.6	10112.0	10151.4	10191.0	10230.6	10270.2	10310.0	10349.8	10389.7	43
44	10429.6	10469.7	10509.8	10550.0	10590.2	10630.6	10671.0	10711.4	10752.0	10792.6	44
45	10833.3	10874.1	10915.0	10955.9	10996.9	11038.0	11079.1	11120.3	11161.6	11203.0	45
46	11244.4	11286.0	11327.6	11369.2	11411.0	11452.8	11494.7	11536.6	11578.7	11620.8	46
47	11663.0	11705.2	11747.6	11790.0	11832.4	11875.0	11917.6	11960.3	12003.1	12046 0	47
48	12088.9	12131.9	12175.0	12218.1	12261.3	12304.6	12348.0	12391.4	12435.0	12478.6	48
49	12522.2	12566.0	12609.8	12653.7	12697.6	12741.7	12785.8	12830.0	12874.2	12918.6	49
50	12963.0	13007.4	13052.0	13096.6	13141.3	13186.1	13231.0	13275.9	13320.9	13366.0	50
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	

TABLE NO. XIV.

Side Triangles.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 20 feet wide. Side slopes 1 to 1.

Centre Height.	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Centre Height.
0	18.52	18.70	18.89	19.07	19.26	19.44	19.63	19.81	20.00	20.19	0
1	20.37	20.56	20.74	20.93	21.11	21.30	21.48	21.67	21.85	22.04	1
2	22.22	22.41	22.59	22.78	22.96	23.15	23.33	23.52	23.70	23.89	2
3	24.07	24.26	24.44	24.63	24.81	25.00	25.19	25.37	25.56	25.74	3
4	25.93	26.11	26.30	26.48	26.67	26.85	27.04	27.22	27.41	27.59	4
5	27.78	27.96	28.15	28.33	28.52	28.70	28.89	29.07	29.26	29.44	5
6	29.63	29.81	30.00	30.19	30.37	30.56	30.74	30.93	31.11	31.30	6
7	31.48	31.67	31.85	32.04	32.22	32.41	32.59	32.78	32.96	33.15	7
8	33.33	33.52	33.70	33.89	34.07	34.26	34.44	34.63	34.81	35.00	8
9	35.19	35.37	35.56	35.74	35.93	36.11	36.30	36.48	36.67	36.85	9
10	37.04	37.22	37.41	37.59	37.78	37.96	38.15	38.33	38.52	38.70	10
11	38.89	39.07	39.26	39.44	39.63	39.81	40.00	40.19	40.37	40.56	11
12	40.74	40.93	41.11	41.30	41.48	41.67	41.85	42.04	42.22	42.41	12
13	42.59	42.78	42.96	43.15	43.33	43.52	43.70	43.89	44.07	44.26	13
14	44.44	44.63	44.81	45.00	45.19	45.37	45.56	45.74	45.93	46.11	14
15	46.30	46.48	46.67	46.85	47.04	47.22	47.41	47.59	47.78	47.96	15
16	48.15	48.33	48.52	48.70	48.89	49.07	49.26	49.44	49.63	49.81	16
17	50.00	50.19	50.37	50.56	50.74	50.93	51.11	51.30	51.48	51.67	17
18	51.85	52.04	52.22	52.41	52.59	52.78	52.96	53.15	53.33	53.52	18
19	53.70	53.89	54.07	54.26	54.44	54.63	54.81	55.00	55.19	55.37	19
20	55.56	55.74	55.93	56.11	56.30	56.48	56.67	56.85	57.04	57.22	20
21	57.41	57.59	57.78	57.96	58.15	58.33	58.52	58.70	58.89	59.07	21
22	59.26	59.44	59.63	59.81	60.00	60.19	60.37	60.56	60.74	60.93	22
23	61.11	61.30	61.48	61.67	61.85	62.04	62.22	62.41	62.59	62.78	23
24	62.96	63.15	63.33	63.52	63.70	63.89	64.07	64.26	64.44	64.63	24
25	64.81	65.00	65.19	65.37	65.56	65.74	65.93	66.11	66.30	66.48	25
26	66.67	66.85	67.04	67.22	67.41	67.59	67.78	67.96	68.15	68.33	26
27	68.52	68.70	68.89	69.07	69.26	69.44	69.63	69.81	70.00	70.19	27
28	70.37	70.56	70.74	70.93	71.11	71.30	71.48	71.67	71.85	72.04	28
29	72.22	72.41	72.59	72.78	72.96	73.15	73.33	73.52	73.70	73.89	29
30	74.07	74.26	74.44	74.63	74.81	75.00	75.19	75.37	75.56	75.74	30
31	75.93	76.11	76.30	76.48	76.67	76.85	77.04	77.22	77.41	77.59	31
32	77.78	77.96	78.15	78.33	78.52	78.70	78.89	79.07	79.26	79.44	32
33	79.63	79.81	80.00	80.19	80.37	80.56	80.74	80.93	81.11	81.30	33
34	81.48	81.67	81.85	82.04	82.22	82.41	82.59	82.78	82.96	83.15	34
35	83.33	83.52	83.70	83.89	84.07	84.26	84.44	84.63	84.81	85.00	35
36	85.19	85.37	85.56	85.74	85.93	86.11	86.30	86.48	86.67	86.85	36
37	87.04	87.22	87.41	87.59	87.78	87.96	88.15	88.33	88.52	88.70	37
38	88.89	89.07	89.26	89.44	89.63	89.81	90.00	90.19	90.37	90.56	38
39	90.74	90.93	91.11	91.30	91.48	91.67	91.85	92.04	92.22	92.41	39
40	92.59	92.78	92.96	93.15	93.33	93.52	93.70	93.89	94.07	94.26	40
41	94.44	94.63	94.81	95.00	95.19	95.37	95.56	95.74	95.93	96.11	41
42	96.30	96.48	96.67	96.85	97.04	97.22	97.41	97.59	97.78	97.96	42
43	98.15	98.33	98.52	98.70	98.89	99.07	99.26	99.44	99.63	99.81	43
44	100.00	100.19	100.37	100.56	100.74	100.93	101.11	101.30	101.48	101.67	44
45	101.85	102.04	102.22	102.41	102.59	102.78	102.96	103.15	103.33	103.52	45
46	103.70	103.89	104.07	104.26	104.44	104.63	104.81	105.00	105.19	105.37	46
47	105.56	105.74	105.93	106.11	106.30	106.48	106.67	106.85	107.04	107.22	47
48	107.41	107.59	107.78	107.96	108.15	108.33	108.52	108.70	108.89	109.07	48
49	109.26	109.44	109.63	109.81	110.00	110.19	110.37	110.56	110.74	110.93	49
50	111.11	111.30	111.48	111.67	111.85	112.04	112.22	112.41	112.59	112.78	50
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	

TABLE NO. XV.

Level Cross Sections.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 24 feet wide. Side slopes 1 to 1.

Height.	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Height.
0	0.0	8.9	17.9	27.0	36.1	45.4	54.7	64.0	73.5	83.0	0
1	92.6	102.3	112.0	121.8	131.7	141.7	151.7	161.8	172.0	182.3	1
2	192.6	203.0	213.5	224.0	234.7	245.4	256.1	267.0	277.9	288.9	2
3	300.0	311.1	322.4	333.7	345.0	356.5	368.0	379.6	391.3	403.0	3
4	414.8	426.7	438.7	450.7	462.8	475.0	487.3	499.6	512.0	524.5	4
5	537.0	549.7	562.4	575.1	588.0	600.9	613.9	627.0	640.1	653.4	5
6	666.7	680.0	693.5	707.0	720.6	734.3	748.0	761.8	775.7	789.7	6
7	803.7	817.8	832.0	846.3	860.6	875.0	889.5	904.0	918.7	933.4	7
8	948.1	963.0	977.9	992.9	1008.0	1023.1	1038.4	1053.7	1069.0	1084.5	8
9	1100.0	1115.6	1131.3	1147.0	1162.8	1178.7	1194.7	1210.7	1226.8	1243.0	9
10	1259.3	1275.6	1292.0	1308.5	1325.0	1341.7	1358.4	1375.1	1392.0	1408.9	10
11	1425.9	1443.0	1460.1	1477.4	1494.7	1512.0	1529.5	1547.0	1564.6	1582.3	11
12	1600.0	1617.8	1635.7	1653.7	1671.7	1689.8	1708.0	1726.3	1744.6	1763.0	12
13	1781.5	1800.0	1818.7	1837.4	1856.1	1875.0	1893.9	1912.9	1932.0	1951.1	13
14	1970.4	1989.7	2009.0	2028.5	2048.0	2067.6	2087.3	2107.0	2126.8	2146.7	14
15	2166.7	2186.7	2206.8	2227.0	2247.3	2267.6	2288.0	2308.5	2329.0	2349.7	15
16	2370.4	2391.1	2412.0	2432.9	2453.9	2475.0	2496.1	2517.4	2538.7	2560.0	16
17	2581.5	2603.0	2624.6	2646.3	2668.0	2689.8	2711.7	2733.7	2755.7	2777.8	17
18	2800.0	2822.3	2844.6	2867.0	2889.5	2912.0	2934.7	2957.4	2980.1	3003.0	18
19	3025.9	3048.9	3072.0	3095.1	3118.4	3141.7	3165.0	3188.5	3212.0	3235.6	19
20	3259.3	3283.0	3306.8	3330.7	3354.7	3378.7	3402.8	3427.0	3451.3	3475.6	20
21	3500.0	3524.5	3549.0	3573.7	3598.4	3623.1	3648.0	3672.9	3697.9	3723.0	21
22	3748.1	3773.4	3798.7	3824.0	3849.5	3875.0	3900.6	3926.3	3952.0	3977.8	22
23	4003.7	4029.7	4055.7	4081.8	4108.0	4134.3	4160.6	4187.0	4213.5	4240.0	23
24	4266.7	4293.4	4320.1	4347.0	4373.9	4400.9	4428.0	4455.1	4482.4	4509.7	24
25	4537.0	4564.5	4592.0	4619.6	4647.3	4675.0	4702.8	4730.7	4758.7	4786.7	25
26	4814.8	4843.0	4871.3	4899.6	4928.0	4956.5	4985.0	5013.7	5042.4	5071.1	26
27	5100.0	5128.9	5157.9	5187.0	5216.1	5245.4	5274.7	5304.0	5333.5	5363.0	27
28	5392.6	5422.3	5452.0	5481.8	5511.7	5541.7	5571.7	5601.8	5632.0	5662.3	28
29	5692.6	5723.0	5753.5	5784.0	5814.7	5845.4	5876.1	5907.0	5937.9	5968.9	29
30	6000.0	6031.1	6062.4	6093.7	6125.0	6156.5	6188.0	6219.6	6251.3	6283.0	30
31	6314.8	6346.7	6378.7	6410.7	6442.8	6475.0	6507.3	6539.6	6572.0	6604.5	31
32	6637.0	6669.7	6702.4	6735.1	6768.0	6800.9	6833.9	6867.0	6900.1	6933.4	32
33	6966.7	7000.0	7033.5	7067.0	7100.6	7134.3	7168.0	7201.8	7235.7	7269.7	33
34	7303.7	7337.8	7372.0	7406.3	7440.6	7475.0	7509.5	7544.0	7578.7	7613.4	34
35	7648.1	7683.0	7717.9	7753.9	7788.0	7823.1	7858.4	7893.7	7929.0	7964.5	35
36	8000.0	8035.6	8071.3	8107.0	8142.8	8178.7	8214.7	8250.7	8286.8	8323.0	36
37	8359.3	8395.6	8432.0	8468.5	8505.0	8541.7	8578.4	8615.1	8652.0	8688.9	37
38	8725.9	8763.0	8800.1	8837.4	8874.7	8912.0	8949.5	8987.0	9024.6	9062.3	38
39	9100.0	9137.8	9175.7	9213.7	9251.7	9289.8	9328.0	9366.3	9404.6	9443.0	39
40	9481.5	9520.0	9558.7	9597.4	9636.1	9675.0	9713.9	9752.9	9792.0	9831.1	40
41	9870.4	9909.7	9949.0	9988.5	10028.0	10067.6	10107.3	10147.0	10186.8	10226.7	41
42	10266.7	10306.7	10346.8	10387.0	10427.2	10467.6	10508.0	10548.5	10589.0	10629.7	42
43	10670.4	10711.1	10752.0	10792.9	10833.9	10875.0	10916.1	10957.4	10998.7	11040.0	43
44	11081.5	11123.0	11164.6	11206.3	11248.0	11289.8	11331.7	11373.7	11415.7	11457.8	44
45	11500.0	11542.3	11584.6	11627.0	11669.5	11712.0	11754.7	11797.4	11840.1	11883.0	45
46	11925.9	11968.9	12012.0	12055.1	12098.4	12141.7	12185.0	12228.5	12272.0	12315.6	46
47	12359.3	12403.0	12446.8	12490.7	12534.7	12578.7	12622.8	12667.0	12711.3	12755.6	47
48	12800.0	12844.5	12889.0	12933.7	12978.4	13023.1	13068.0	13112.9	13157.9	13203.0	48
49	13248.1	13293.4	13338.7	13384.0	13429.5	13475.0	13520.6	13566.3	13612.0	13657.8	49
50	13703.7	13749.7	13795.7	13841.8	13888.0	13934.3	13980.6	14027.0	14073.5	14120.0	50
	.0	.1	.2	.3	4.	.5	6.	.7	.8	.9	

TABLE NO. XVI.

Side Triangles.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 24 feet wide. Side slopes 1 to 1.

Centre Height.	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Centre Height.
0	22.22	22.41	22.59	22.78	22.96	23.15	23.33	23.52	23.70	23.89	0
1	24.07	24.26	24.44	24.63	24.81	25.00	25.19	25.37	25.56	25.74	1
2	25.93	26.11	26.30	26.48	26.67	26.85	27.04	27.22	27.41	27.59	2
3	27.78	27.96	28.15	28.33	28.52	28.70	28.89	29.07	29.26	29.44	3
4	29.63	29.81	30.00	30.19	30.37	30.56	30.74	30.93	31.11	31.30	4
5	31.48	31.67	31.85	32.04	32.22	32.41	32.59	32.78	32.96	33.15	5
6	33.33	33.52	33.70	33.89	34.07	34.26	34.44	34.63	34.81	35.00	6
7	35.19	35.37	35.56	35.74	35.93	36.11	36.30	36.48	36.67	36.85	7
8	37.04	37.22	37.41	37.59	37.78	37.96	38.15	38.33	38.52	38.70	8
9	38.89	39.07	39.26	39.44	39.63	39.81	40.00	40.19	40.37	40.56	9
10	40.74	40.93	41.11	41.30	41.48	41.67	41.85	42.04	42.22	42.41	10
11	42.59	42.78	42.96	43.15	43.33	43.52	43.70	43.89	44.07	44.26	11
12	44.44	44.63	44.81	45.00	45.19	45.37	45.56	45.74	45.93	46.11	12
13	46.30	46.48	46.67	46.85	47.04	47.22	47.41	47.59	47.78	47.96	13
14	48.15	48.33	48.52	48.70	48.89	49.07	49.26	49.44	49.63	49.81	14
15	50.00	50.19	50.37	50.56	50.74	50.93	51.11	51.30	51.48	51.67	15
16	51.85	52.04	52.22	52.41	52.59	52.78	52.96	53.15	53.33	53.52	16
17	53.70	53.89	54.07	54.26	54.44	54.63	54.81	55.00	55.19	55.37	17
18	55.56	55.74	55.93	56.11	56.30	56.48	56.67	56.85	57.04	57.22	18
19	57.41	57.59	57.78	57.96	58.15	58.33	58.52	58.70	58.89	59.07	19
20	59.26	59.44	59.63	59.81	60.00	60.19	60.37	60.56	60.74	60.93	20
21	61.11	61.30	61.48	61.67	61.85	62.04	62.22	62.41	62.59	62.78	21
22	62.96	63.15	63.33	63.52	63.70	63.89	64.07	64.26	64.44	64.63	22
23	64.81	65.00	65.19	65.37	65.56	65.74	65.93	66.11	66.30	66.48	23
24	66.67	66.85	67.04	67.22	67.41	67.59	67.78	67.96	68.15	68.33	24
25	68.52	68.70	68.89	69.07	69.26	69.44	69.63	69.81	70.00	70.19	25
26	70.37	70.56	70.74	70.93	71.11	71.30	71.48	71.67	71.85	72.04	26
27	72.22	72.41	72.59	72.78	72.96	73.15	73.33	73.52	73.70	73.89	27
28	74.07	74.26	74.44	74.63	74.81	75.00	75.19	75.37	75.56	75.74	28
29	75.93	76.11	76.30	76.48	76.67	76.85	77.04	77.22	77.41	77.59	29
30	77.78	77.96	78.15	78.33	78.52	78.70	78.89	79.07	79.26	79.44	30
31	79.63	79.81	80.00	80.19	80.37	80.56	80.74	80.93	81.11	81.30	31
32	81.48	81.67	81.85	82.04	82.22	82.41	82.59	82.78	82.96	83.15	32
33	83.33	83.52	83.70	83.89	84.07	84.26	84.44	84.63	84.81	85.00	33
34	85.19	85.37	85.56	85.74	85.93	86.11	86.30	86.48	86.67	86.85	34
35	87.04	87.22	87.41	87.59	87.78	87.96	88.15	88.33	88.52	88.70	35
36	88.89	89.07	89.26	89.44	89.63	89.81	90.00	90.19	90.37	90.56	36
37	90.74	90.93	91.11	91.30	91.48	91.67	91.85	92.04	92.22	92.41	37
38	92.59	92.78	92.96	93.15	93.33	93.52	93.70	93.89	94.07	94.26	38
39	94.44	94.63	94.81	95.00	95.19	95.37	95.56	95.74	95.93	96.11	39
40	96.30	96.48	96.67	96.85	97.04	97.22	97.41	97.59	97.78	97.96	40
41	98.15	98.33	98.52	98.70	98.89	99.07	99.26	99.44	99.63	99.81	41
42	100.00	100.19	100.37	100.56	100.74	100.93	101.11	101.30	101.48	101.67	42
43	101.85	102.04	102.22	102.41	102.59	102.78	102.96	103.15	103.33	103.52	43
44	103.70	103.89	104.07	104.26	104.44	104.63	104.81	105.00	105.19	105.37	44
45	105.56	105.74	105.93	106.11	106.30	106.48	106.67	106.85	107.04	107.22	45
46	107.41	107.59	107.78	107.96	108.15	108.33	108.52	108.70	108.89	109.07	46
47	109.26	109.44	109.63	109.81	110.00	110.19	110.37	110.56	110.74	110.93	47
48	111.11	111.30	111.48	111.67	111.85	112.04	112.22	112.41	112.59	112.78	48
49	112.96	113.15	113.33	113.52	113.70	113.89	114.07	114.26	114.44	114.63	49
50	114.81	115.00	115.19	115.37	115.56	115.74	115.93	116.11	116.30	116.48	50
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	

TABLE NO. XVII.

Level Cross Sections.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 28 feet wide. Side slopes 1 to 1.

Height.	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Height.
0	0.0	10.4	20.9	31.4	42.1	52.8	63.6	74.4	85.3	96.3	0
1	107.4	118.6	129.8	141.1	152.4	163.9	175.4	187.0	198.7	210.4	1
2	222.2	234.1	246.1	258.1	270.2	282.4	294.7	307.0	319.4	331.9	2
3	344.4	357.1	369.8	382.6	395.4	408.3	421.3	434.4	447.6	460.8	3
4	474.1	487.4	500.9	514.4	528.0	541.7	555.4	569.2	583.1	597.1	4
5	611.1	625.2	639.4	653.7	668.0	682.4	696.9	711.4	726.1	740.8	5
6	755.6	770.4	785.3	800.3	815.4	830.6	845.8	861.1	876.4	891.9	6
7	907.4	923.0	938.7	954.4	970.2	986.1	1002.1	1018.1	1034.2	1050.4	7
8	1066.7	1083.0	1099.4	1115.9	1132.4	1149.1	1165.8	1182.6	1199.4	1216.3	8
9	1233.3	1250.4	1267.6	1284.8	1302.1	1319.4	1336.9	1354.4	1372.0	1389.7	9
10	1407.4	1425.2	1443.1	1461.1	1479.1	1497.2	1515.4	1533.7	1552.0	1570.4	10
11	1588.9	1607.4	1626.1	1644.8	1663.6	1682.4	1701.3	1720.3	1739.4	1758.6	11
12	1777.8	1797.1	1816.4	1835.9	1855.4	1875.0	1894.7	1914.4	1934.2	1954.1	12
13	1974.1	1994.1	2014.2	2034.4	2054.7	2075.0	2095.4	2115.9	2136.4	2157.1	13
14	2177.8	2198.6	2219.4	2240.3	2261.3	2282.4	2303.6	2324.8	2346.1	2367.4	14
15	2388.9	2410.4	2432.0	2453.7	2475.4	2497.2	2519.1	2541.1	2563.1	2585.2	15
16	2607.4	2629.7	2652.0	2674.4	2696.9	2719.4	2742.1	2764.8	2787.6	2810.4	16
17	2833.3	2856.3	2879.4	2902.6	2925.8	2949.1	2972.4	2995.9	3019.4	3043.0	17
18	3066.7	3090.4	3114.2	3138.1	3162.1	3186.1	3210.2	3234.4	3258.7	3283.0	18
19	3307.4	3331.9	3356.4	3381.1	3405.8	3430.6	3455.4	3480.3	3505.3	3530.4	19
20	3555.6	3580.8	3606.1	3631.4	3656.9	3682.4	3708.0	3733.7	3759.4	3785.2	20
21	3811.1	3837.1	3863.1	3889.2	3915.4	3941.7	3968.0	3994.4	4020.9	4047.4	21
22	4074.1	4100.8	4127.6	4154.4	4181.3	4208.3	4235.4	4262.6	4289.8	4317.1	22
23	4344.4	4371.9	4399.4	4427.0	4454.7	4482.4	4510.2	4538.1	4566.1	4594.1	23
24	4622.2	4650.4	4678.7	4707.0	4735.4	4763.9	4792.4	4821.1	4849.8	4878.6	24
25	4907.4	4936.3	4965.3	4994.4	5023.6	5052.8	5082.1	5111.4	5140.9	5170.4	25
26	5200.0	5229.7	5259.4	5289.2	5319.1	5349.1	5379.1	5409.2	5439.4	5469.7	26
27	5500.0	5530.4	5560.9	5591.4	5622.1	5652.8	5683.6	5714.4	5745.3	5776.3	27
28	5807.4	5838.6	5869.8	5901.1	5932.4	5963.9	5995.4	6027.0	6058.7	6090.4	28
29	6122.2	6154.1	6186.1	6218.1	6250.2	6282.4	6314.7	6347.0	6379.4	6411.9	29
30	6444.4	6477.1	6509.8	6542.6	6575.4	6608.3	6641.3	6674.4	6707.6	6740.8	30
31	6774.1	6807.4	6840.9	6874.4	6908.0	6941.7	6975.4	7009.2	7043.1	7077.1	31
32	7111.1	7145.2	7179.4	7213.7	7248.0	7282.4	7316.9	7351.4	7386.1	7420.8	32
33	7455.6	7490.4	7525.3	7560.3	7595.4	7630.6	7665.8	7701.1	7736.4	7771.9	33
34	7807.4	7843.0	7878.7	7914.4	7950.2	7986.1	8022.1	8058.1	8094.2	8130.4	34
35	8166.7	8203.0	8239.4	8275.9	8312.4	8349.1	8385.8	8422.6	8459.4	8496.3	35
36	8533.3	8570.4	8607.6	8644.8	8682.1	8719.4	8756.9	8794.4	8832.0	8869.7	36
37	8907.4	8945.2	8983.1	9021.1	9059.1	9097.2	9135.4	9173.7	9212.0	9250.4	37
38	9288.9	9327.4	9366.1	9404.8	9443.6	9482.4	9521.3	9560.3	9599.4	9638.6	38
39	9677.8	9717.1	9756.4	9795.9	9835.4	9875.0	9914.7	9954.4	9994.2	10034.1	39
40	10074.1	10114.1	10154.2	10194.4	10234.7	10275.0	10315.4	10355.9	10396.4	10437.1	40
41	10477.8	10518.6	10559.4	10600.3	10641.3	10682.4	10723.6	10764.8	10806.1	10847.4	41
42	10888.9	10930.4	10972.0	11013.7	11055.4	11097.2	11139.1	11181.1	11223.1	11265.2	42
43	11307.4	11349.7	11392.0	11434.4	11476.9	11519.4	11562.1	11604.8	11647.6	11690.4	43
44	11733.3	11776.3	11819.4	11862.6	11905.8	11949.1	11992.4	12035.9	12079.4	12123.0	44
45	12166.7	12210.4	12254.2	12298.1	12342.1	12386.1	12430.2	12474.4	12518.7	12563.0	45
46	12607.4	12651.9	12696.4	12741.1	12785.8	12830.6	12875.4	12920.3	12965.3	13010.4	46
47	13055 6	13100.8	13146.1	13191.4	13236.9	13282.4	13328.0	13373.7	13419.4	13465.2	47
48	13511.1	13557.1	13603.1	13649.2	13695.4	13741.7	13788.0	13834.4	13880.9	13927.4	48
49	13974.1	14020.8	14067.6	14114.4	14161.3	14208.3	14255.4	14302.6	14349.8	14397.1	49
50	14444.4	14491.9	14539.4	14587.0	14634.7	14682.4	14730.2	14778.1	14826.1	14874.1	50
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	

TABLE NO. XVIII.

Side Triangles.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 28 feet wide. Side slope 1 to 1.

Centre Height.	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Centre Height.
0	25.93	26.11	26.30	26.48	26.67	26.85	27.04	27.22	27.41	27.59	0
1	27.78	27.96	28.15	28.33	28.52	28.70	28.89	29.07	29.26	29.44	1
2	29.63	29.81	30.00	30.19	30.37	30.56	30.74	30.93	31.11	31.30	2
3	31.48	31.67	31.85	32.04	32.22	32.41	32.59	32.78	32.96	33.15	3
4	33.33	33.52	33.70	33.89	34.07	34.26	34.44	34.63	34.81	35.00	4
5	35.19	35.37	35.56	35.74	35.93	36.11	36.30	36.48	36.67	36.85	5
6	37.04	37.22	37.41	37.59	37.78	37.96	38.15	38.33	38.52	38.70	6
7	38.89	39.07	39.26	39.44	39.63	39.81	40.00	40.19	40.37	40.56	7
8	40.74	40.93	41.11	41.30	41.48	41.67	41.85	42.04	42.22	42.41	8
9	42.59	42.78	42.96	43.15	43.33	43.52	43.70	43.89	44.07	44.26	9
10	44.44	44.63	44.81	45.00	45.19	45.37	45.56	45.74	45.93	46.11	10
11	46.30	46.48	46.67	46.85	47.04	47.22	47.41	47.59	47.78	47.96	11
12	48.15	48.33	48.52	48.70	48.89	49.07	49.26	49.44	49.63	49.81	12
13	50.00	50.19	50.37	50.56	50.74	50.93	51.11	51.30	51.48	51.67	13
14	51.85	52.04	52.22	52.41	52.59	52.78	52.96	53.15	53.33	53.52	14
15	53.70	53.89	54.07	54.26	54.44	54.63	54.81	55.00	55.19	55.37	15
16	55.56	55.74	55.93	56.11	56.30	56.48	56.67	56.85	57.04	57.22	16
17	57.41	57.59	57.78	57.96	58.15	58.33	58.52	58.70	58.89	59.07	17
18	59.26	59.44	59.63	59.81	60.00	60.19	60.37	60.56	60.74	60.93	18
19	61.11	61.30	61.48	61.67	61.85	62.04	62.22	62.41	62.59	62.78	19
20	62.96	63.15	63.33	63.52	63.70	63.89	64.07	64.26	64.44	64.63	20
21	64.81	65.00	65.19	65.37	65.56	65.74	65.93	66.11	66.30	66.48	21
22	66.67	66.85	67.04	67.22	67.41	67.59	67.78	67.96	68.15	68.33	22
23	68.52	68.70	68.89	69.07	69.26	69.44	69.63	69.81	70.00	70.19	23
24	70.37	70.56	70.74	70.93	71.11	71.30	71.48	71.67	71.85	72.04	24
25	72.22	72.41	72.59	72.78	72.96	73.15	73.33	73.52	73.70	73.89	25
26	74.07	74.26	74.44	74.63	74.81	75.00	75.19	75.37	75.56	75.74	26
27	75.93	76.11	76.30	76.48	76.67	76.85	77.04	77.22	77.41	77.59	27
28	77.78	77.96	78.15	78.33	78.52	78.70	78.89	79.07	79.26	79.44	28
29	79.63	79.81	80.00	80.19	80.37	80.56	80.74	80.93	81.11	81.30	29
30	81.48	81.67	81.85	82.04	82.22	82.41	82.59	82.78	82.96	83.15	30
31	83.33	83.52	83.70	83.89	84.07	84.26	84.44	84.63	84.81	85.00	31
32	85.19	85.37	85.56	85.74	85.93	86.11	86.30	86.48	86.67	86.85	32
33	87.04	87.22	87.41	87.59	87.78	87.96	88.15	88.33	88.52	88.70	33
34	88.89	89.07	89.26	89.44	89.63	89.81	90.00	90.19	90.37	90.56	34
35	90.74	90.93	91.11	91.30	91.48	91.67	91.85	92.04	92.22	92.41	35
36	92.59	92.78	92.96	93.15	93.33	93.52	93.70	93.89	94.07	94.26	36
37	94.44	94.63	94.81	95.00	95.19	95.37	95.56	95.74	95.93	96.11	37
38	96.30	96.48	96.67	96.85	97.04	97.22	97.41	97.59	97.78	97.96	38
39	98.15	98.33	98.52	98.70	98.89	99.07	99.26	99.44	99.63	99.81	39
40	100.00	100.19	100.37	100.56	100.74	100.93	101.11	101.30	101.48	101.67	40
41	101.85	102.04	102.22	102.41	102.59	102.78	102.96	103.15	103.33	103 52	41
42	103.70	103.89	104.07	104.26	104.44	104.63	104.81	105.00	105.19	105.37	42
43	105.56	105.74	105.93	106.11	106.30	106.48	106.67	106.85	107.04	107.22	43
44	107.41	107.59	107.78	107.96	108.15	108.33	108.52	108.70	108.89	109.07	44
45	109.26	109.44	109.63	109.81	110.00	110.19	110.37	110.56	110.74	110.93	45
46	111.11	111.30	111.48	111.67	111.85	112.04	112.22	112.41	112.59	112.78	46
47	112.96	113.15	113.33	113.52	113.70	113.89	114.07	114.26	114.44	114.63	47
48	114.81	115.00	115.19	115.37	115.56	115.74	115.93	116.11	116.30	116.48	48
49	116.67	116.85	117.04	117.22	117.41	117.59	117.78	117.96	118.15	118.33	49
50	118.52	118.70	118.89	119.07	119.26	119.44	119.63	119.81	120.00	120.19	50
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	

TABLE NO. XIX.

Level Cross Sections.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 28 feet wide. Side slopes ½ to 1.

Height	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Height
0	0.0	10.4	20.8	31.3	41.8	52.3	62.9	73.5	84.1	94.8	0
1	105.6	116.3	127.1	137.9	148.8	159.7	170.7	181.6	192.7	203.7	1
2	214.8	225.9	237.1	248.3	259.6	270.8	282.1	293.5	304.9	316.3	2
3	327.8	339.3	350.8	362.4	374.0	385.6	397.3	409.1	420.8	432.6	3
4	444.4	456.3	468.2	480.2	492.1	504.2	516.2	528.3	540.4	552.6	4
5	564.8	577.1	589.3	601.6	614.0	626.4	638.8	651.3	663.8	676.3	5
6	688.9	701.5	714.1	726.8	739.6	752.3	765.1	777.9	790.8	803.7	6
7	816.7	829.6	842.7	855.7	868.8	881.9	895.1	908.3	921.6	934.8	7
8	948.1	961.5	974.9	988.3	1001.8	1015.3	1028.8	1042.4	1056.0	1069.6	8
9	1083.3	1097.1	1110.8	1124.6	1138.4	1152.3	1166.2	1180.2	1194.1	1208.2	9
10	1222.2	1236.3	1250.4	1264.6	1278.8	1293.1	1307.3	1321.6	1336.0	1350.4	10
11	1364.8	1379.3	1393.8	1408.3	1422.9	1437.5	1452.1	1466.8	1481.6	1496.3	11
12	1511.1	1525.9	1540.8	1555.7	1570.7	1585.6	1600.7	1615.7	1630.8	1645.9	12
13	1661.1	1676.3	1691.6	1706.8	1722.1	1737.5	1752.9	1768.3	1783.8	1799.3	13
14	1814.8	1830.4	1846.0	1861.6	1877.3	1893.1	1908.8	1924.6	1940.4	1956.3	14
15	1972.2	1988.2	2004.1	2020.2	2036.2	2052.3	2068.4	2084.6	2100.8	2117.1	15
16	2133.3	2149.6	2166.0	2182.4	2198.8	2215.3	2231.8	2248.3	2264.9	2281.5	16
17	2298.1	2314.8	2331.6	2348.3	2365.1	2381.9	2398.8	2415.7	2432.7	2449.6	17
18	2466.7	2483.7	2500.8	2517.9	2535.1	2552.3	2569.6	2586.8	2604.1	2621.5	18
19	2638.9	2656.3	2673.8	2691.3	2708.8	2726.4	2744.0	2761.6	2779.3	2797.1	19
20	2814.8	2832.6	2850.4	2868.3	2886.2	2904.2	2922.1	2940.2	2958.2	2976.3	20
21	2994.4	3012.6	3030.8	3049.1	3067.3	3085.6	3104.0	3122.4	3140.8	3159.3	21
22	3177.8	3196.3	3214.9	3233.5	3252.1	3270.8	3289.6	3308.3	3327.1	3345.9	22
23	3364.8	3383.7	3402.7	3421.6	3440.7	3459.7	3478.8	3497.9	3517.1	3536.3	23
24	3555.6	3574.8	3594.1	3613.5	3632.9	3652.3	3671.8	3691.3	3710.8	3730.4	24
25	3750.0	3769.6	3789.3	3809.1	3828.8	3848.6	3868.4	3888.3	3908.2	3928.2	25
26	3948.1	3968.2	3988.2	4008.3	4028.4	4048.6	4068.8	4089.1	4109.3	4129.6	26
27	4150.0	4170.4	4190.8	4211.3	4231.8	4252.3	4272.9	4293.5	4314.1	4334.8	27
28	4355.6	4376.3	4397.1	4417.9	4438.8	4459.7	4480.7	4501.6	4522.7	4543.7	28
29	4564.8	4585.9	4607.1	4628.3	4649.6	4670.8	4692.1	4713.5	4734.9	4756.3	29
30	4777.8	4799.3	4820.8	4842.4	4864.0	4885.6	4907.3	4929.1	4950.8	4972.6	30
31	4994.4	5016.3	5038.2	5060.2	5082.1	5104.2	5126.2	5148.3	5170.4	5192.6	31
32	5214.8	5237.1	5259.3	5281.6	5304.0	5326.4	5348.8	5371.3	5393.8	5416.3	32
33	5438.9	5461.5	5484.1	5506.8	5529.6	5552.3	5575.1	5597.9	5620.8	5643.7	33
34	5666.7	5689.6	5712.7	5735.7	5758.8	5781.9	5805.1	5828.3	5851.6	5874.8	34
35	5898.1	5921.5	5944.9	5968.3	5991.8	6015.3	6038.8	6062.4	6086.0	6109.6	35
36	6133.3	6157.1	6180.8	6204.6	6228.4	6252.3	6276.2	6300.2	6324.1	6348.2	36
37	6372.2	6396.3	6420.4	6444.6	6468.8	6493.1	6517.3	6541.6	6566.0	6590.4	37
38	6614.8	6639.3	6663.8	6688.3	6712.9	6737.5	6762.1	6786.8	6811 6	6836.3	38
39	6861.1	6885.9	6910.8	6935.7	6960.7	6985.6	7010.7	7035.7	7060.8	7085 9	39
40	7111.1	7136.3	7161.6	7186.8	7212.1	7237.5	7262.9	7288.3	7313.8	7339.3	40
41	7364.8	7390.4	7416.0	7441.6	7467.3	7493.1	7518.8	7544.6	7570.4	7596.3	41
42	7622.2	7648.2	7674.1	7700.2	7726.2	7752.3	7778.4	7804.6	7830.8	7857.1	42
43	7883.3	7909.6	7936.0	7962.4	7988.8	8015.3	8041.8	8068.3	8094.9	8121.5	43
44	8148.1	8174.8	8201.6	8228.3	8255.1	8281.9	8308.8	8335.7	8362.7	8389.6	44
45	8416.7	8443.7	8470.8	8497.9	8525.1	8552.3	8579.6	8606.8	8634.1	8661.5	45
46	8688.9	8716.3	8743.8	8771.3	8798.8	8826.4	8854.0	8881.6	8909.3	8937.1	46
47	8964.8	8992.6	9020.4	9048.3	9076.2	9104.2	9132.1	9160.2	9188.2	9216.3	47
48	9244.4	9272.6	9300.8	9329.1	9357.3	9385.6	9414.0	9442.4	9470.8	9499.3	48
49	9527.8	9556.3	9584.9	9613.5	9642.1	9670.8	9699.6	9728.3	9757.1	9785.9	49
50	9814.8	9843.7	9872.7	9901.6	9930.7	9959.7	9988.8	10017.9	10047.1	10076.3	50
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	

TABLE NO. XX.

Side Triangles.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 28 feet wide. Side slope ¼ to 1.

Centre Height.	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Centre Height.
0	25.98	26.02	26.11	26.20	26.30	26.39	26.48	26.57	26.67	26.76	0
1	26.85	26.94	27.04	27.13	27.22	27.31	27.41	27.50	27.59	27.69	1
2	27.78	27.87	27.96	28.06	28.15	28.24	28.33	28.43	28.52	28.61	2
3	28.70	28.80	28.89	28.98	29.07	29.17	29.26	29.35	29.44	29.54	3
4	29.63	29.72	29.81	29.91	30.00	30.09	30.19	30.28	30.37	30.46	4
5	30.56	30.65	30.74	30.83	30.93	31.02	31.11	31.20	31.30	31.39	5
6	31.48	31.57	31.67	31.76	31.85	31.94	32.04	32.13	32.22	32.31	6
7	32.41	32.50	32.59	32.69	32.78	32.87	32.96	33.06	33.15	33.24	7
8	33.33	33.43	33.52	33.61	33.70	33.80	33.89	33.98	34.07	34.17	8
9	34.26	34.35	34.44	34.54	34.63	34.72	34.81	34.91	35.00	35.09	9
10	35.19	35.28	35.37	35.46	35.56	35.65	35.74	35.83	35.93	36.02	10
11	36.11	36.20	36.30	36.39	36.48	36.57	36.67	36.76	36.85	36.94	11
12	37.04	37.13	37.22	37.31	37.41	37.50	37.59	37.69	37.78	37.87	12
13	37.96	38.06	38.15	38.24	38.33	38.43	38.52	38.61	38.70	38.80	13
14	38.89	38.98	39.07	39.17	39.26	39.35	39.44	39.54	39.63	39.72	14
15	39.81	39.91	40.00	40.09	40.19	40.28	40.37	40.46	40.56	40.65	15
16	40.74	40.83	40.93	41.02	41.11	41.20	41 30	41.39	41.48	41.57	16
17	41.67	41.76	41.85	41.94	42.04	42.13	42.22	42.31	42.41	42.50	17
18	42.59	42.69	42.78	42.87	42.96	43.06	43.15	43.24	43.33	43.43	18
19	43.52	43.61	43.70	43.80	43.89	43.98	44.07	44.17	44.26	44.35	19
20	44.44	44.54	44.63	44.72	44.81	44.91	45.00	45.09	45.19	45.28	20
21	45.37	45.46	45.56	45.65	45.74	45.83	45.98	46.02	46.11	46.20	21
22	46.30	46.39	46.48	46.57	46.67	46.76	46.85	46.94	47.04	47.13	22
23	47.22	47.31	47.41	47.50	47.59	47.69	47.78	47.87	47.96	48.06	23
24	48.15	48.24	48.33	48.43	48.52	48.61	48.70	48.80	48.89	48.98	24
25	49.07	49.17	49.26	49.35	49.44	49.54	49.63	49.72	49.81	49.91	25
26	50.00	50.09	50.19	50.28	50.37	50.46	50.56	50.65	50.74	50.83	26
27	50.93	51.02	51.11	51.20	51.30	51.39	51.48	51.57	51.67	51.76	27
28	51.85	51.94	52.04	52.13	52.22	52.31	52.41	52.50	52.59	52.69	28
29	52.78	52.87	52.96	53.06	53.15	53.24	53.33	53.43	53.52	53.61	29
30	53.70	53.80	53.89	53.98	54.07	54.17	54.26	54.35	54.44	54.54	30
31	54.63	54.72	54.81	54.91	55.00	55.09	55.19	55.28	55.37	55.46	31
32	55.56	55.65	55.74	55.83	55.93	56.02	56.11	56.20	56.30	56.39	32
33	56.48	56.57	56.67	56.76	56.85	56.94	57.04	57.13	57.22	57.31	33
34	57.41	57.50	57.59	57.69	57.78	57.87	57.96	58.06	58.15	58.24	34
35	58.33	58.43	58.52	58.61	58.70	58.80	58.89	58.98	59.07	59.17	35
36	59.26	59.35	59.44	59.54	59.63	59.72	59.81	59.91	60.00	60.09	36
37	60.19	60.28	60.37	60.46	60.56	60.65	60.74	60.83	60.93	61.02	37
38	61.11	61.20	61.30	61.39	61.48	61.57	61.67	61.76	61.85	61.94	38
39	62.04	62.13	62.22	62.31	62.41	62.50	62.59	62.69	62.78	62.87	39
40	62.96	63.06	63.15	63.24	63.33	63.43	63.52	63.61	63.70	63.80	40
41	63.89	63.98	64.07	64.17	64.26	64.35	64.44	64.54	64.63	64.72	41
42	64.81	64.91	65.00	65.09	65.19	65.28	65.37	65.46	65.56	65.65	42
43	65.74	65.83	65.93	66.02	66.11	66.20	66.30	66.39	66.48	66.57	43
44	66.67	66.76	66.85	66.94	67.04	67.13	67.22	67.31	67.41	67.50	44
45	67.59	67.69	67.78	67.87	67.96	68.06	68.15	68.24	68.33	68.43	45
46	68.52	68.61	68.70	68.80	68.89	68.98	69.07	69.17	69.26	69.35	46
47	69.44	69.54	69.63	69.72	69.81	69.91	70.00	70.09	70.19	70.28	47
48	70.37	70.46	70.56	70.65	70.74	70.83	70.93	71.02	71.11	71.20	48
49	71.30	71.39	71.48	71.57	71.67	71.76	71.85	71.94	72.04	72.13	49
50	72.22	72.31	72.41	72.50	72.59	72.69	72.78	72.87	72.96	73.06	50
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	

TABLE NO. XXII.

Level Cross Sections.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 20 feet wide. Side slopes ½ to 1.

Height.	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Height.
0	0.0	7.4	14.9	22.3	29.8	37.3	44.8	52.3	59.9	67.4	0
1	75.0	82.6	90.2	97.9	105.5	113.2	120.9	128.6	136.3	144.1	1
2	151.9	159.6	167.4	175.3	183.1	191.0	198.9	206 8	214.7	222.6	2
3	230.6	238.5	246.5	254.5	262.6	270.6	278.7	286.8	294.9	303.0	3
4	311.1	319.3	327.4	335.6	343.9	352.1	360.3	368.6	376.9	385.2	4
5	393.5	401.9	410.2	418.6	427.0	435.4	443.9	452.3	460.8	469.3	5
6	477.8	486.3	494.9	503.4	512.0	520.6	529.2	537.9	546.5	555.2	6
7	563.9	572.6	581.3	590.1	598.9	607.6	616.4	625.3	634.1	643.0	7
8	651.9	660.8	669.7	678.6	687.6	696.5	705.5	714.5	723.6	732.6	8
9	741.7	750.8	759.9	769.0	778.1	787.3	796.4	805.6	814.9	824.1	9
10	833.3	842.6	851.9	861.2	870.5	879.9	889.2	898.6	908.0	917.4	10
11	926.9	936.3	945.8	955.3	964.8	974.3	983.9	993.4	1003.0	1012.6	11
12	1022.2	1031.9	1041.5	1051.2	1060.9	1070.6	1080.3	1090.1	1099.9	1109.6	12
13	1119.4	1129.3	1139.1	1149.0	1158.9	1168.8	1178.7	1188.6	1198.6	1208.5	13
14	1218.5	1228.5	1238.6	1248.6	1258.7	1268.8	1278.9	1289.0	1299.1	1309.3	14
15	1319.4	1329.6	1339.9	1350.1	1360.3	1370.6	1380.9	1391.2	1401.5	1411.9	15
16	1422.2	1432.6	1443.0	1453.4	1463.9	1474.3	1484.8	1495.3	1505.8	1516.3	16
17	1526.9	1537.4	1548.0	1558.6	1569.2	1579.9	1590.5	1601.2	1611.9	1622.6	17
18	1633.3	1644.1	1654.9	1665.6	1676.4	1687.3	1698.1	1709.0	1719.9	1730.8	18
19	1741.7	1752.6	1763.6	1774.5	1785.5	1796.5	1807.6	1818.6	1829.7	1840.8	19
20	1851.9	1863.0	1874.1	1885.3	1896.4	1907.6	1918.9	1930.1	1941.3	1952.6	20
21	1963.9	1975.2	1986.5	1997.9	2009.2	2020.6	2032.0	2043.4	2054.9	2066.3	21
22	2077.8	2089.3	2100.8	2112.3	2123.9	2135.4	2147.0	2158.6	2170.2	2181.9	22
23	2193.5	2205.2	2216.9	2228.6	2240.3	2252.1	2263.9	2275.6	2287.4	2299.3	23
24	2311.1	2323.0	2334.9	2346.8	2358.7	2370.6	2382.6	2394.5	2406.5	2418.5	24
25	2430.6	2442.6	2454.7	2466.8	2478.9	2491.0	2503.1	2515.3	2527.4	2539.6	25
26	2551.9	2564.1	2576.3	2588.6	2600.9	2613.2	2625.5	2637.9	2650.2	2662.6	26
27	2675.0	2687.4	2699.9	2712.3	2724.8	2737.3	2749.8	2762.3	2774.9	2787.4	27
28	2800.0	2812.6	2825.2	2837.9	2850.5	2863.2	2875.9	2888.6	2901.3	2914.1	28
29	2926.9	2939.6	2952.4	2965.3	2978.1	2991.0	3003.9	3016.8	3029.7	3042.6	29
30	3055.6	3068.5	3081.5	3094.5	3107.6	3120.6	3133.7	3146.8	3159.9	3173.0	30
31	3186.1	3199.3	3212.4	3225.6	3238.9	3252.1	3265.3	3278.6	3291.9	3305.2	31
32	3318.5	3331.9	3345.2	3358.6	3372.0	3385.4	3398.9	3412.3	3425.8	3439.3	32
33	3452.8	3466.3	3479.9	3493.4	3507.0	3520.6	3534.2	3547.9	3561.5	3575.2	33
34	3588.9	3602.6	3616.3	3630.1	3643.9	3657.6	3671.4	3685.3	3699.1	3713.0	34
35	3726.9	3740.8	3754.7	3768.6	3782.6	3796.5	3810.5	3824.5	3838.6	3852.6	35
36	3866.7	3880.8	3894.9	3909.0	3923.1	3937.3	3951.4	3965.6	3979.9	3994.1	36
37	4008.3	4022.6	4036.9	4051.2	4065.5	4079.9	4094.2	4108.6	4123.0	4137.4	37
38	4151.9	4166.3	4180.8	4195.3	4209.8	4224.3	4238.9	4253.4	4268.0	4282.6	38
39	4297.2	4311.9	4326.5	4341.2	4355.9	4370.6	4385.3	4400.1	4414.9	4429.6	39
40	4444.4	4459.3	4474.1	4489.0	4503.9	4518.8	4533.7	4548.6	4563.6	4578.5	40
41	4593.5	4608.5	4623.6	4638.6	4653.7	4668.8	4683.9	4699.0	4714.1	4729.3	41
42	4744.4	4759.6	4774.9	4790.1	4805.3	4820.6	4835.9	4851.2	4866.5	4881.9	42
43	4897.2	4912.6	4928.0	4943.4	4958.9	4974.3	4989.8	5005.3	5020.8	5036.3	43
44	5051.9	5067.4	5083.0	5098.6	5114.2	5129.9	5145.5	5161.2	5176.9	5192.6	44
45	5208.3	5224.1	5239.9	5255.6	5271.4	5287.3	5303.1	5319.0	5334.9	5350.8	45
46	5366.7	5382.6	5398.6	5414.5	5430.5	5446.5	5462.6	5478.6	5494.7	5510.8	46
47	5526.9	5543.0	5559.1	5575.3	5591.4	5607.6	5623.9	5640.1	5656.3	5672.6	47
48	5688.9	5705.2	5721.5	5737.9	5754.2	5770.6	5787.0	5803.4	5819.9	5836.3	48
49	5852.8	5869.3	5885 8	5902.3	5918.9	5935.4	5952.0	5968.6	5985.2	6001.9	49
50	6018.5	6035.2	6051.9	6068.6	6085.3	6102.1	6118.9	6135.6	6152.4	6169.3	50
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	

TABLE NO. XXII.

Side Triangles.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 20 feet wide. Side slopes ½ to 1.

Centre Height.	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Centre Height.
0	18.52	18.56	18.61	18.66	18.70	18.75	18.80	18.84	18.89	18.94	0
1	18.98	19.03	19.07	19.12	19.17	19.21	19.26	19.31	19.35	19.40	1
2	19.44	19.49	19.54	19.58	19.63	19.68	19.72	19.77	19.81	19.86	2
3	19.91	19.95	20.00	20.05	20.09	20.14	20.19	20.23	20.28	20.32	3
4	20.37	20.42	20.46	20.51	20.56	20.60	20.65	20.69	20.74	20.79	4
5	20.83	20.88	20.93	20.97	21.02	21.06	21.11	21.16	21.20	21.25	5
6	21.30	21.34	21.39	21.44	21.48	21.53	21.57	21.62	21.67	21.71	6
7	21.76	21.81	21.85	21.90	21.94	21.99	22.04	22.08	22.13	22.18	7
8	22.22	22.27	22.31	22.36	22.41	22.45	22.50	22.55	22.59	22.64	8
9	22.69	22.73	22.78	22.82	22.87	22.92	22.96	23.01	23.06	23.10	9
10	23.15	23.19	23.24	23.29	23.33	23.38	23.43	23.47	23.52	23.56	10
11	23.61	23.66	23.70	23.75	23.80	23.84	23.89	23.94	23.98	24.03	11
12	24.07	24.12	24.17	24.21	24.26	24.31	24.35	24.40	24.44	24.49	12
13	24.54	24.58	24.63	24.68	24.72	24.77	24.81	24.86	24.91	24.95	13
14	25.00	25.05	25.09	25.14	25.19	25.23	25.28	25.32	25.37	25.42	14
15	25.46	25.51	25.56	25.60	25.65	25.69	25.74	25.79	25.83	25.88	15
16	25.93	25.97	26.02	26.06	26.11	26.16	26.20	26.25	26.30	26.34	16
17	26.39	26.44	26.48	26.53	26.57	26.62	26.67	26.71	26.76	26.81	17
18	26.85	26.90	26.94	26.99	27.04	27.08	27.13	27.18	27.22	27.27	18
19	27.31	27.36	27.41	27.45	27.50	27.55	27.59	27.64	27.69	27.73	19
20	27.78	27.82	27.87	27.92	27.96	28.01	28.06	28.10	28.15	28.19	20
21	28.24	28.29	28.33	28.38	28.43	28.47	28.52	28.56	28.61	28.66	21
22	28.70	28.75	28.80	28.84	28.89	28.94	28.98	29.03	29.07	29.12	22
23	29.17	29.21	29.26	29.31	29.35	29.40	29.44	29.49	29.54	29.58	23
24	29.63	29.68	29.72	29.77	29.81	29.86	29.91	29.95	30.00	30.05	24
25	30.09	30.14	30.19	30.23	30.28	30.32	30.37	30.42	30.46	30.51	25
26	30.56	30.60	30.65	30.69	30.74	30.79	30.83	30.88	30.93	30.97	26
27	31.02	31.06	31.11	31.16	31.20	31.25	31.30	31.34	31.39	31.44	27
28	31.48	31.53	31.57	31.62	31.67	31.71	31.76	31.81	31.85	31.90	28
29	31.94	31.99	32.04	32.08	32.13	32.18	32.22	32.27	32.31	32.36	29
30	32.41	32.45	32.50	32.55	32.59	32.64	32.69	32.73	32.78	32.82	30
31	32.87	32.92	32.96	33.01	33.06	33.10	33.15	33.19	33.24	33.29	31
32	33.33	33.38	33.43	33.47	33.52	33.56	33.61	33.66	33.70	33.75	32
33	33.80	33.84	33.89	33.94	33.98	34.03	34.07	34.12	34.17	34.21	33
34	34.26	34.31	34.35	34.40	34.44	34.49	34.54	34.58	34.63	34.68	34
35	34.72	34.77	34.81	34.86	34.91	34.95	35.00	35.05	35.09	35.14	35
36	35.19	35.23	35.28	35.32	35.37	35.42	35.46	35.51	35.56	35.60	36
37	35.65	35.69	35.74	35.79	35.83	35.88	35.93	35.97	36.02	36.06	37
38	36.11	36.16	36.20	36.25	36.30	36.34	36.39	36.44	36.48	36.53	38
39	36.57	36.62	36.67	36.71	36.76	36.81	36.85	36.90	36.94	36.99	39
40	37.04	37.08	37.13	37.18	37.22	37.27	37.31	37.36	37.41	37.45	40
41	37.50	37.55	37.59	37.64	37.69	37.73	37.78	37.82	37.87	37.92	41
42	37.96	38.01	38.06	38.10	38.15	38.19	38.24	38.29	38.33	38.38	42
43	38.43	38.47	38.52	38.56	38.61	38.66	38.70	38.75	38.80	38.84	43
44	38.89	38.94	38.98	39.03	39.07	39.12	39.17	39.21	39.26	39.31	44
45	39.35	39.40	39.44	39.49	39.54	39.58	39.63	39.68	39.72	39.77	45
46	39.81	39.86	39.91	39.95	40.00	40.05	40.09	40.14	40.19	40.23	46
47	40.28	40.32	40.37	40.42	40.46	40.51	40.56	40.60	40.65	40.69	47
48	40.74	40.79	40.83	40.88	40.93	40.97	41.02	41.06	41.11	41.16	48
49	41.20	41.25	41.30	41.34	41.39	41.44	41.48	41.53	41.57	41.62	49
50	41.67	41.71	41.76	41.81	41.85	41.90	41.94	41.99	43.04	42.08	50
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	

TABLE NO. XXIII.

Level Cross Sections.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 28 feet wide. Side slopes ½ to 1.

Height.	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Height.
0	0.0	10.4	20.8	31.2	41.6	52.1	62.6	73.0	83.6	94.1	0
1	104.6	115.2	125.8	136.4	147.0	157.6	168.3	179.0	189.7	200.4	1
2	211.1	221.9	232.6	243.4	254.2	265.0	275.9	286.8	297.6	308.5	2
3	319.4	330.4	341.3	352.3	363.3	374.3	385.3	396.4	407.4	418.5	3
4	429.6	440.8	451.9	463.0	474.2	485.4	496.6	507.9	519.1	530.4	4
5	541.7	553.0	564.3	575.6	587.0	598.4	609.8	621.2	632.6	644.1	5
6	655.6	667.0	678.6	690.1	701.6	713.2	724.8	736.4	748.0	759.6	6
7	771.3	783.0	794.7	806.4	818.1	829.9	841.6	853.4	865.2	877.0	7
8	888.9	900.8	912.6	924.5	936.4	948.4	960.3	972.3	984.3	996.3	8
9	1008.3	1020.4	1032.4	1044.5	1056.6	1068.8	1080.9	1093.0	1105.2	1117.4	9
10	1129.6	1141.9	1154.1	1166.4	1178.7	1191.0	1203.3	1215.6	1228.0	1240.4	10
11	1252.8	1265.2	1277.6	1290.1	1302.6	1315.0	1327.6	1340.1	1352.6	1365.2	11
12	1377.8	1390.4	1403.0	1415.6	1428.3	1441.0	1453.7	1466.4	1479.1	1491.9	12
13	1504.6	1517.4	1530.2	1543.0	1555.9	1568.8	1581.6	1594.5	1607.4	1620.4	13
14	1633.3	1646.3	1659.3	1672.3	1685.3	1698.4	1711.4	1724.5	1737.6	1750.8	14
15	1763.9	1777.0	1790.2	1803.4	1816.6	1829.9	1843.1	1856.4	1869.7	1883.0	15
16	1896.3	1909.6	1923.0	1936.4	1949.8	1963.2	1976.6	1990.1	2003.6	2017.0	16
17	2030.6	2044.1	2057.6	2071.2	2084.8	2098.4	2112.0	2125.6	2139.3	2153.0	17
18	2166.7	2180.4	2194.1	2207.9	2221.6	2235.4	2249.2	2263.0	2276.9	2290.8	18
19	2304.6	2318.5	2332.4	2346.4	2360.3	2374.3	2388.3	2402.3	2416.3	2430.4	19
20	2444.4	2458.5	2472.6	2486.8	2500.9	2515.0	2529.2	2543.4	2557.6	2571.9	20
21	2586.1	2600.4	2614.7	2629.0	2643.3	2657.6	2672.0	2686.4	2700.8	2715.2	21
22	2729.6	2744.1	2758.6	2773.0	2787.6	2802.1	2816.6	2831.2	2845.8	2860.4	22
23	2875.0	2889.6	2904.3	2919.0	2933.7	2948.4	2963.1	2977.9	2992.6	3007.4	23
24	3022.2	3037.0	3051.9	3066.8	3081.6	3096.5	3111.4	3126.4	3141.3	3156.3	24
25	3171.3	3186.3	3201.3	3216.4	3231.4	3246.5	3261.6	3276.8	3291.9	3307.0	25
26	3322.2	3337.4	3352.6	3367.9	3383.1	3398.4	3413.7	3429.0	3444.3	3459.6	26
27	3475.0	3490.4	3505.8	3521.2	3536.6	3552.1	3567.6	3583.0	3598.6	3614.1	27
28	3629.6	3645.2	3660.8	3676.4	3692.0	3707.6	3723.3	3738.9	3754.7	3770.4	28
29	3786.1	3801.9	3817.6	3833.4	3849.2	3865.0	3880.9	3896.8	3912.6	3928.5	29
30	3944.4	3960.4	3976.3	3992.3	4008.3	4024.3	4040.3	4056.4	4072.4	4088.5	30
31	4104.6	4120.8	4136.9	4153.0	4169.2	4185.4	4201.6	4217.9	4234.1	4250.4	31
32	4266.7	4283.0	4299.3	4315.6	4332.0	4348.4	4364.8	4381.2	4397.6	4414.1	32
33	4430.6	4447.0	4463.6	4480.1	4496.6	4513.2	4529.8	4546.4	4563.0	4579.6	33
34	4596.3	4613.0	4629.7	4646.4	4663.1	4679.9	4696.6	4713.4	4730.2	4747.0	34
35	4763.9	4780.8	4797.6	4814.5	4831.4	4848.4	4865.3	4882.3	4899.3	4916.3	35
36	4933.3	4950.4	4967.4	4984.5	5001.6	5018.8	5035.9	5053.0	5070.2	5087.4	36
37	5104.6	5121.9	5139.1	5156.4	5173.7	5191.0	5208.3	5225.6	5243.0	5260.4	37
38	5277.8	5295.2	5312.6	5330.1	5347.6	5365.0	5382.6	5400.1	5417.6	5435.2	38
39	5452.8	5470.4	5488.0	5505.6	5523.3	5541.0	5558.7	5576.4	5594.1	5611.9	39
40	5629.6	5647.4	5665.2	5683.0	5700.9	5718.8	5736.6	5754.5	5772.4	5790.4	40
41	5808.3	5826.3	5844.3	5862.3	5880.3	5898.4	5916.4	5934.5	5952.6	5970.8	41
42	5988.9	6007.0	6025.2	6043.4	6061.6	6079.9	6098.1	6116.4	6134.7	6153.0	42
43	6171.3	6189.6	6208.0	6226.4	6244.8	6263.2	6281.6	6300.1	6318.6	6337.0	43
44	6355.6	6374.1	6392.6	6411.2	6429.8	6448.4	6467.0	6485.6	6504.3	6523.0	44
45	6541.7	6560.4	6579.1	6597.9	6616.6	6635.4	6654.2	6673.0	6691.9	6710.8	45
46	6729.6	6748.5	6767.4	6786.4	6805.3	6824.3	6843.3	6862.3	6881.3	6900.4	46
47	6919.4	6938.5	6957.6	6976.8	6995.9	7015.0	7034.2	7053.4	7072.6	7091.9	47
48	7111.1	7130.4	7149.7	7169.0	7188.3	7207.6	7227.0	7246.4	7265.8	7285.2	48
49	7304.6	7324.1	7343.6	7363.0	7382.6	7402.1	7421.6	7441.2	7460.8	7480.4	49
50	7500.0	7519.6	7539.3	7559.0	7578.7	7598.4	7618.1	7637.9	7657.6	7677.4	50
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	

TABLE NO. XXIV.

Side Triangles.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 28 feet wide. Side slopes ½ to 1.

Centre Height.	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	Centre Height.
0	25.93	25.97	26.02	26.06	26.11	26.16	26.20	26.25	26.30	26.34	0
1	26.39	26.44	26.48	26.53	26.57	26.62	26.67	26.71	26.76	26.81	1
2	26.85	26.90	26.94	26.99	27.04	27.08	27.13	27.18	27.22	27.27	2
3	27.31	27.36	27.41	27.45	27.50	27.55	27.59	27.64	27.69	27.73	3
4	27.78	27.82	27.87	27.92	27.96	28.01	28.06	28.10	28.15	28.19	4
5	28.24	28.29	28.33	28.38	28.43	28.47	28.52	28.56	28.61	28.66	5
6	28.70	28.75	28.80	28.84	28.89	28.94	28.98	29.03	29.07	29.12	6
7	29.17	29.21	29.26	29.31	29.35	29.40	29.44	29.49	29.54	29.58	7
8	29.63	29.68	29.72	29.77	29.81	29.86	29.91	29.95	30.00	30.05	8
9	30.09	30.14	30.19	30.23	30.28	30.32	30.37	30.42	30.46	30.51	9
10	30.56	30.60	30.65	30.69	30.74	30.79	30.83	30.88	30.93	30.97	10
11	31.02	31.06	31.11	31.16	31.20	31.25	31.30	31.34	31.39	31.44	11
12	31.48	31.53	31.57	31.62	31.67	31.71	31.76	31.81	31.85	31.90	12
13	31.94	31.99	32.04	32.08	32.13	32.18	32.22	32.27	32.31	32.36	13
14	32.41	32.45	32.50	32.55	32.59	32.64	32.69	32.73	32.78	32.82	14
15	32.87	32.92	32.96	33.01	33.06	33.10	33.15	33.19	33.24	33.29	15
16	33.33	33.38	33.43	33.47	33.52	33.56	33.61	33.66	33.70	33.75	16
17	33.80	33.84	33.89	33.94	33.98	34.03	34.07	34.12	34.17	34.21	17
18	34.26	34.31	34.35	34.40	34.44	34.49	34.54	34.58	34.63	34.68	18
19	34.72	34.77	34.81	34.86	34.91	34.95	35.00	35.05	35.09	35.14	19
20	35.19	35 23	35.28	35.32	35.37	35.42	35.46	35.51	35.56	35.60	20
21	35.65	35.69	35.74	35.79	35.83	35.88	35.93	35.97	36.02	36.06	21
22	36.11	36.16	36.20	36.25	36.30	36.34	36.39	36.44	36.48	36.53	22
23	36.57	36.62	36.67	36.71	36.76	36.81	36.85	36.90	36.94	36.99	23
24	37.04	37.08	37.13	37.18	37.22	37.27	37.31	37.36	37.41	37.45	24
25	37.50	37.55	37.59	37.64	37.69	37.73	37.78	37.82	37.87	37.92	25
26	37.96	38.01	38.06	38.10	38.15	38.19	38.24	38.29	38.33	38.38	26
27	38.43	38.47	38.52	38.56	38.61	38.66	38.70	38.75	38.80	38.84	27
28	38.89	38.94	38.98	39.03	39.07	39.12	39.17	39.21	39.26	39.31	28
29	39.35	39.40	39.44	39.49	39.54	39.58	39.63	39.68	39.72	39.77	29
30	39.81	39.86	39.91	39.95	40.00	40.05	40.09	40.14	40.19	40.23	30
31	40.28	40.32	40.37	40.42	40.46	40.51	40.56	40.60	40.65	40 69	31
32	40.74	40.79	40.83	40.88	40.93	40.97	41.02	41.06	41.11	41.16	32
33	41.20	41.25	41.30	41.34	41.39	41.44	41.48	41.53	41.57	41.62	33
34	41.67	41.71	41.76	41.81	41.85	41.90	41.94	41.99	42.04	42.08	34
35	42.13	42.18	42.22	42.27	42.31	42.36	42.41	42.45	42.50	42.55	35
36	42.59	42.64	42.69	42.73	42.78	42.82	42.87	42.92	42.96	43.01	36
37	43.06	43 10	43.15	43.19	43.24	43.29	43.33	43.38	43.43	43.47	37
38	43.52	43.56	43.61	43.66	43.70	43.75	43.80	43.84	43.89	43.94	38
39	43.98	44.03	44.07	44.12	44.17	44.21	44.26	44.31	44.35	44.40	39
40	44.44	44.49	44.54	44.58	44.63	44.68	44.72	44.77	44.81	44.86	40
41	44.91	44.95	45.00	45.05	45.09	45.14	45.19	45.23	45.28	45.32	41
42	45.37	45.42	45.46	45.51	45.56	45.60	45.65	45.69	45.74	45.79	42
43	45.83	45.88	45.93	45.97	46.02	46.06	46.11	46.16	46.20	46.25	43
44	46.30	46.34	46.39	46.44	46.48	46.53	46.57	46.62	46.67	46.71	44
45	46.76	46.81	46.85	46.90	46.94	46.99	47.04	47.08	47.13	47.18	45
46	47.22	47.27	47.31	47.36	47.41	47.45	47.50	47.55	47.59	47.64	46
47	47.69	47.73	47.78	47.82	47.87	47.92	47.96	48.01	48.06	48.10	47
48	48.15	48.19	48.24	48.29	48.33	48.38	48.43	48.47	48.52	48.56	48
49	48.61	48.66	48.70	48.75	48.80	48.84	48.89	48.94	48.98	49.03	49
50	49.07	49.12	49.17	49.21	49.26	49.31	49.35	49.40	49.44	49.49	50
	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	

TABLE NO. I.

Level Cross Sections.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 10 feet wide. Side slopes 1½ to 1.

Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.
0.0	0	5.0	324	10.0	926	15.0	1806	20.0	2963	25.0	4398	30.0	6111	35.0	8102
0.1	4	5.1	333	10.1	941	15.1	1826	20.1	2989	25.1	4430	30.1	6148	35.1	8145
0.2	8	5.2	343	10.2	956	15.2	1847	20.2	3015	25.2	4461	30.2	6185	35.2	8187
0.3	12	5.3	352	10.3	971	15.3	1867	20.3	3041	25.3	4493	30.3	6223	35.3	8230
0.4	16	5.4	362	10.4	986	15.4	1888	20.4	3068	25.4	4525	30.4	6260	35.4	8273
0.5	20	5.5	372	10.5	1001	15.5	1909	20.5	3094	25.5	4557	30.5	6298	35.5	8316
0.6	24	5.6	382	10.6	1017	15.6	1930	20.6	3121	25.6	4589	30.6	6335	35.6	8359
0.7	29	5.7	392	10.7	1032	15.7	1951	20.7	3147	25.7	4621	30.7	6373	35.7	8403
0.8	33	5.8	402	10.8	1048	15.8	1972	20.8	3174	25.8	4654	30.8	6411	35.8	8446
0.9	38	5.9	412	10.9	1064	15.9	1993	20.9	3201	25.9	4686	30.9	6449	35.9	8490
1.0	43	6.0	422	11.0	1080	16.0	2015	21.0	3228	26.0	4719	31.0	6487	36.0	8533
1.1	47	6.1	433	11.1	1096	16.1	2036	21.1	3255	26.1	4751	31.1	6525	36.1	8577
1.2	52	6.2	443	11.2	1112	16.2	2058	21.2	3282	26.2	4784	31.2	6564	36.2	8621
1.3	58	6.3	454	11.3	1128	16.3	2080	21.3	3309	26.3	4817	31.3	6602	36.3	8665
1.4	63	6.4	465	11.4	1144	16.4	2102	21.4	3337	26.4	4850	31.4	6641	36.4	8709
1.5	68	6.5	475	11.5	1161	16.5	2124	21.5	3364	26.5	4883	31.5	6679	36.5	8753
1.6	73	6.6	486	11.6	1177	16.6	2146	21.6	3392	26.6	4916	31.6	6718	36.6	8798
1.7	79	6.7	498	11.7	1194	16.7	2168	21.7	3420	26.7	4949	31.7	6757	36.7	8842
1.8	85	6.8	509	11.8	1211	16.8	2190	21.8	3448	26.8	4983	31.8	6796	36.8	8887
1.9	90	6.9	520	11.9	1227	16.9	2213	21.9	3476	26.9	5016	31.9	6835	36.9	8931
2.0	96	7.0	531	12.0	1244	17.0	2235	22.0	3504	27.0	5050	32.0	6874	37.0	8976
2.1	102	7.1	543	12.1	1262	17.1	2258	22.1	3532	27.1	5084	32.1	6913	37.1	9021
2.2	108	7.2	555	12.2	1279	17.2	2281	22.2	3560	27.2	5118	32.2	6953	37.2	9066
2.3	115	7.3	566	12.3	1296	17.3	2303	22.3	3589	27.3	5152	32.3	6992	37.3	9111
2.4	121	7.4	578	12.4	1313	17.4	2326	22.4	3617	27.4	5186	32.4	7032	37.4	9156
2.5	127	7.5	590	12.5	1331	17.5	2350	22.5	3646	27.5	5220	32.5	7072	37.5	9201
2.6	134	7.6	602	12.6	1349	17.6	2373	22.6	3675	27.6	5254	32.6	7112	37.6	9247
2.7	141	7.7	615	12.7	1366	17.7	2396	22.7	3703	27.7	5289	32.7	7152	37.7	9292
2.8	147	7.8	627	12.8	1384	17.8	2419	22.8	3732	27.8	5323	32.8	7192	37.8	9338
2.9	154	7.9	639	12.9	1402	17.9	2443	22.9	3762	27.9	5358	32.9	7232	37.9	9384
3.0	161	8.0	652	13.0	1420	18.0	2467	23.0	3791	28.0	5393	33.0	7272	38.0	9430
3.1	168	8.1	665	13.1	1439	18.1	2490	23.1	3820	28.1	5427	33.1	7313	38.1	9476
3.2	175	8.2	677	13.2	1457	18.2	2514	23.2	3849	28.2	5462	33.2	7353	38.2	9523
3.3	183	8.3	690	13.3	1475	18.3	2538	23.3	3879	28.3	5498	33.3	7394	38.3	9568
3.4	190	8.4	703	13.4	1494	18.4	2562	23.4	3909	28.4	5533	33 4	7435	38.4	9614
3.5	198	8.5	716	13.5	1513	18.5	2587	23.5	3938	28.5	5568	33.5	7475	38.5	9661
3.6	205	8.6	729	13.6	1531	18.6	2611	23.6	3968	28.6	5603	33.6	7516	38.6	9707
3.7	213	8.7	743	13.7	1550	18.7	2635	23.7	3998	28.7	5639	33.7	7558	38.7	9754
3.8	221	8.8	756	13.8	1569	18.8	2660	23.8	4028	28.8	5675	33.8	7599	38.8	9801
3.9	229	8.9	770	13.9	1588	18.9	2685	23.9	4059	28.9	5710	33.9	7640	38.9	9847
4.0	237	9.0	783	14.0	1607	19.0	2709	24.0	4089	29.0	5746	34.0	7681	39.0	9894
4.1	245	9.1	797	14.1	1627	19.1	2734	24.1	4119	29.1	5782	34.1	7723	39.1	9942
4.2	254	9.2	811	14.2	1646	19.2	2759	24.2	4150	29.2	5818	34.2	7765	39.2	9989
4 3	263	9.3	825	14.3	1666	19.3	2784	24.3	4181	29.3	5855	34.3	7806	39.3	10036
4.4	271	9.4	839	14.4	1685	19.4	2809	24.4	4211	29.4	5891	34.4	7848	39.4	10083
4.5	279	9.5	853	14.5	1705	19.5	2835	24.5	4242	29.5	5927	34.5	7890	39.5	10131
4.6	288	9.6	868	14.6	1725	19.6	2860	24.6	4273	29.6	5964	34.6	7932	39.6	10179
4.7	297	9.7	882	14.7	1745	19.7	2886	24.7	4304	29.7	6001	34.7	7975	39.7	10226
4.8	306	9.8	897	14.8	1765	19.8	2911	24.8	4335	29.8	6037	34 8	8017	39.8	10274
4.9	315	9.9	911	14.9	1785	19.9	2937	24.9	4367	29.9	6074	34.9	8059	39.9	10322

TABLE NO. II.

Side Triangles.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 10 feet wide. Side slopes 1½ to 1.

Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.
0 0	9.3	5.0	28.1	10.0	37.0	15.0	50.9	20.0	64.8	25.0	78.7	30.0	92.6	35.0	106.5
0.1	9.5	5.1	28.4	10.1	37.3	15.1	51.2	20.1	65.1	25.1	79.0	30.1	92.9	35.1	106.8
0.2	9.8	5.2	28.7	10.2	37.6	15.2	51.5	20.2	65.4	25.2	79.3	30.2	93.1	35.2	107.0
0.3	10.1	5.3	24.0	10.3	37.9	15.3	51.8	20.3	65.6	25.3	79.5	30.3	93.4	35.3	107.3
0.4	10.4	5.4	24.3	10.4	38.1	15.4	52.0	20.4	65.9	25.4	79.8	30.4	93.7	35.4	107.6
0.5	10.6	5.5	24.5	10.5	38.4	15.5	52.3	20.5	66.2	25.5	80.1	30.5	94.0	35.5	107.9
0.6	10.9	5.6	24.8	10.6	38.7	15.6	52.6	20.6	66.5	25.6	80.4	30.6	94.3	35.6	108.1
0.7	11.2	5.7	25.1	10.7	39.0	15.7	52.9	20.7	66.8	25.7	80.6	30.7	94.5	35.7	108.4
0.8	11.5	5.8	25.4	10.8	39.3	15.8	53.1	20.8	67.0	25.8	80.9	30.8	94.8	35.8	108.7
0.9	11.8	5.9	25.6	10.9	39.5	15.9	53.4	20.9	67.3	25.9	81.2	30.9	95.1	35.9	109.0
1.0	12.0	6.0	25.9	11.0	39.8	16.0	53.7	21.0	67.6	26.0	81.5	31.0	95.4	36.0	109.3
1.1	12.3	6.1	26.2	11.1	40.1	16.1	54.0	21.1	67.9	26.1	81.8	31.1	95.6	36.1	109.5
1.2	12.6	6.2	26.5	11.2	40.4	16.2	54.3	21.2	68.1	26.2	82.0	31.2	95.9	36.2	109.8
1.3	12.9	6.3	26.8	11.3	40.6	16.3	54.5	21.3	68.4	26.3	82.3	31.3	96.2	36.3	110.1
1.4	13.1	6.4	27.0	11.4	40.9	16.4	54.8	21.4	68.7	26.4	82.6	31.4	96.5	36.4	110.4
1.5	13.4	6.5	27.3	11.5	41.2	16.5	55.1	21.5	69.0	26.5	82.9	31.5	96.8	36.5	110.6
1.6	13.7	6.6	27.6	11.6	41.5	16.6	55.4	21.6	69.3	26.6	83.1	31.6	97 0	36.6	110.9
1.7	14.0	6.7	27.9	11.7	41.8	16.7	55.6	21.7	69.5	26.7	83.4	31.7	97.3	36.7	111.2
1.8	14.3	6.8	28.1	11.8	42.0	16.8	55.9	21.8	69.8	26.8	83.7	31.8	97.6	36.8	111.5
1.9	14.5	6.9	28.4	11.9	42.3	16.9	56.2	21.9	70.1	26.9	84.0	31.9	97.9	36.9	111.8
2.0	14.8	7.0	28.7	12.0	42.6	17.0	56.5	22.0	70.4	27.0	84.3	32.0	98.1	37.0	112.0
2.1	15.1	7.1	29 0	12.1	42.9	17.1	56.8	22.1	70.6	27.1	84 5	32.1	98.4	37.1	112.3
2.2	15.4	7.2	29.3	12.2	43.1	17.2	57.0	22.2	70.9	27.2	84.8	32.2	98.7	37.2	112.6
2.3	15.6	7.3	29.5	12.3	43.4	17.3	57.3	22.3	71.2	27.3	85.1	32.3	99.0	37.3	112.9
2.4	15.9	7.4	29.8	12.4	43.7	17.4	57.6	22.4	71.5	27.4	85.4	32.4	99.3	37.4	113.1
2.5	16.2	7.5	30.1	12.5	44.0	17.5	57.9	22.5	71.8	27.5	85.6	32.5	99.5	37.5	113.4
2.6	16.5	7.6	30.4	12.6	44.3	17.6	58.1	22.6	72.0	27.6	85.9	32.6	99.8	37.6	113.7
2.7	16.8	7.7	30.6	12.7	44.5	17.7	58.4	22.7	72.3	27.7	86.2	32.7	100.1	37.7	114.0
2.8	17.0	7.8	30.9	12.8	44.8	17.8	58.7	22.8	72.6	27.8	86.5	32.8	100.4	37.8	114.3
2.9	17.3	7.9	31.2	12.9	45.1	17.9	59.0	22.9	72.9	27.9	86.8	32.9	100.6	37.9	114.5
3.0	17.6	8.0	31.5	13.0	45.4	18.0	59.3	23.0	73.1	28.0	87.0	33.0	100.9	38.0	114.8
3.1	17.9	8.1	31.8	13.1	45.6	18.1	59.5	23.1	73.4	28.1	87.3	33.1	101.2	38.1	115.1
3.2	18.1	8.2	32.0	13.2	45.9	18.2	59.8	23.2	73.7	28.2	87.6	33.2	101.5	38.2	115.4
3.3	18.4	8.3	32.3	13.3	46.2	18.3	60.1	23.3	74.0	28.3	87.9	33.3	101.8	38.3	115.6
3.4	18.7	8.4	32.6	13.4	46.5	18.4	60.4	23.4	74.3	28.4	88.1	33.4	102.0	38.4	115.9
3.5	19.0	8.5	32.9	13.5	46.8	18.5	60.6	23.5	74.5	28.5	88.4	33.5	102.3	38.5	116.2
3.6	19.3	8.6	33.1	13.6	47.0	18.6	60.9	23.6	74.8	28.6	88.7	33.6	102.6	38.6	116.5
3.7	19.5	8.7	33.4	13.7	47.3	18.7	61.2	23.7	75.1	28.7	89.0	33.7	102.9	38.7	116.8
3.8	19.8	8.8	33.7	13.8	47.6	18.8	61.5	23.8	75.4	28.8	89.3	33.8	103.1	38.8	117.0
3.9	20.1	8.9	34.0	13.9	47.9	18.9	61.8	23.9	75.6	28.9	89.5	33.9	103.4	38.9	117.3
4.0	20.4	9.0	34.3	14.0	48.1	19.0	62.0	24.0	75.9	29.0	89.8	34.0	103.7	39.0	117.6
4.1	20.6	9.1	34.5	14.1	48.4	19.1	62.3	24.1	76.2	29.1	90.1	34.1	104.0	39.1	117.9
4.2	20.9	9.2	34.8	14.2	48.7	19.2	62.6	24.2	76.5	29.2	90.4	34.2	104.3	39.2	118.1
4.3	21.2	9.3	35.1	14.3	49.0	19.3	62.9	24.3	76.8	29.3	90.6	34.3	104.5	39.3	118.4
4.4	21.5	9.4	35.4	14.4	49.3	19.4	63.1	24.4	77.0	29.4	90.9	34.4	104.8	39.4	118.7
4.5	21.8	9.5	35.6	14.5	49.5	19.5	63.4	24.5	77.3	29.5	91.2	34.5	105.1	39.5	119.0
4.6	22.0	9.6	35.9	14.6	49.8	19.6	63.7	24.6	77.6	29.6	91.5	34.6	105.4	39.6	119.3
4.7	22.3	9.7	36.2	14.7	50.1	19.7	64.0	24.7	77.9	29.7	91.8	34.7	105.6	39.7	119.5
4.8	22.6	9.8	36.5	14.8	50.4	19.8	64.3	24.8	78.1	29.8	92.0	34.8	105.9	39.8	119.8
4.9	22.9	9.9	36.8	14.9	50.6	19.9	64.5	24.9	78.4	29.9	92.3	34.9	106.2	39.9	120.1

TABLE NO. III.

Level Cross Sections.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 14 feet wide. Side slopes 1½ to 1.

Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.
0.0	0	5.0	398	10.0	1074	15.0	2028	20.0	3259	25.0	4769	30.0	6556	35.0	8620
0.1	5	5.1	409	10.1	1090	15.1	2050	20.1	3287	25.1	4802	30.1	6594	35.1	8665
0.2	11	5.2	420	10.2	1107	15.2	2072	20.2	3314	25.2	4835	30.2	6633	35.2	8709
0.3	16	5.3	431	10.3	1123	15.3	2094	20.3	3342	25.3	4868	30.3	6672	35.3	8753
0.4	22	5.4	442	10.4	1140	15.4	2116	20.4	3370	25.4	4901	30.4	6711	35.4	8798
0.5	27	5.5	453	10.5	1157	15.5	2138	20.5	3398	25.5	4935	30.5	6750	35.5	8842
0.6	33	5.6	465	10.6	1174	15.6	2161	20.6	3426	25.6	4968	30.6	6789	35.6	8887
0.7	39	5.7	476	10.7	1191	15.7	2183	20.7	3454	25.7	5002	30.7	6828	35.7	8932
0 8	45	5.8	488	10.8	1208	15.8	2206	20.8	3482	25.8	5036	30.8	6867	35.8	8977
0.9	51	5 9	499	10.9	1225	15.9	2229	20.9	3510	25.9	5070	30.9	6907	35.9	9022
1.0	57	6.0	511	11.0	1243	16.0	2252	21.0	3539	26.0	5104	31.0	6946	36.0	9067
1.1	64	6.1	523	11.1	1260	16.1	2275	21.1	3567	26.1	5138	31.1	6986	36.1	9112
1.2	70	6.2	535	11.2	1278	16.2	2298	21.2	3596	26.2	5172	31.2	7026	36.2	9157
1.3	77	6.3	547	11.3	1295	16.3	2321	21.3	3625	26.3	5206	31.3	7066	36.3	9203
1.4	83	6.4	559	11.4	1313	16.4	2345	21.4	3654	26.4	5241	31.4	7106	36.4	9248
1.5	90	6.5	572	11.5	1331	16.5	2368	21.5	3683	26.5	5275	31.5	7146	36.5	9294
1.6	97	6.6	584	11.6	1349	16.6	2392	21.6	3712	26.6	5310	31.6	7186	36.6	9340
1.7	104	6.7	597	11.7	1367	16.7	2415	21.7	3741	26.7	5345	31.7	7226	36.7	9386
1.8	111	6.8	609	11.8	1385	16.8	2439	21.8	3771	26.8	5380	31.8	7267	36.8	9432
1.9	119	6.9	622	11.9	1404	16.9	2463	21.9	3800	26.9	5415	31.9	7307	36.9	9478
2.0	126	7.0	635	12.0	1422	17.0	2487	22.0	3830	27.0	5450	32.0	7348	37.0	9524
2.1	133	7.1	648	12.1	1441	17.1	2511	22.1	3859	27.1	5485	32.1	7389	37.1	9570
2.2	141	7.2	661	12.2	1459	17.2	2535	22.2	3889	27.2	5521	32.2	7430	37.2	9617
2.3	149	7.3	675	12.3	1478	17.3	2560	22.3	3919	27.3	5556	32.3	7471	37.3	9663
2.4	156	7.4	688	12.4	1497	17.4	2584	22.4	3949	27.4	5592	32.4	7512	37.4	9710
2.5	164	7.5	701	12.5	1516	17.5	2609	22.5	3979	27.5	5627	32.5	7553	37.5	9757
2.6	172	7.6	715	12.6	1535	17.6	2633	22.6	4009	27.6	5663	32.6	7595	37.6	9804
2.7	181	7.7	729	12.7	1555	17.7	2658	22.7	4040	27.7	5699	32.7	7636	37.7	9851
2.8	189	7.8	742	12.8	1574	17.8	2683	22.8	4070	27.8	5735	32.8	7678	37.8	9898
2.9	197	7.9	756	12.9	1593	17.9	2708	22.9	4101	27.9	5771	32.9	7719	37.9	9945
3.0	206	8.0	770	13.0	1613	18.0	2733	23.0	4131	28.0	5807	33.0	7761	38.0	9993
3.1	214	8.1	785	13.1	1633	18.1	2759	23.1	4162	28.1	5844	33.1	7803	38.1	10040
3.2	223	8.2	799	13.2	1652	18.2	2784	23.2	4193	28.2	5880	33.2	7845	38.2	10088
3.3	232	8.3	813	13.3	1672	18.3	2809	23.3	4224	28.3	5917	33.3	7887	38.3	10135
3.4	241	8.4	828	13.4	1692	18.4	2835	23.4	4255	28.4	5953	33.4	7929	38.4	10183
3.5	250	8.5	842	13.5	1713	18.5	2861	23.5	4287	28.5	5990	33.5	7972	38.5	10231
3.6	259	8.6	857	13.6	1733	18.6	2886	23.6	4318	28.6	6027	33.6	8014	38.6	10279
3.7	268	8.7	872	13.7	1753	18.7	2912	23.7	4349	28.7	6064	33.7	8057	38.7	10327
3.8	277	8.8	887	13.8	1774	18.8	2938	23.8	4381	28.8	6101	33.8	8099	38.8	10375
3.9	287	8.9	902	13.9	1794	18.9	2965	23.9	4413	28.9	6139	33.9	8142	38.9	10424
4.0	296	9.0	917	14.0	1815	19.0	2991	24.0	4444	29.0	6176	34.0	8185	39.0	10472
4.1	306	9.1	932	14.1	1836	19.1	3017	24.1	4476	29.1	6213	34.1	8228	39.1	10521
4.2	316	9.2	947	14.2	1857	19.2	3044	24.2	4508	29.2	6251	34.2	8271	39.2	10569
4.3	326	9.3	963	14.3	1878	19.3	3070	24.3	4541	29.3	6289	34.3	8315	39.3	10618
4.4	336	9.4	978	14.4	1899	19.4	3097	24.4	4573	29.4	6326	34.4	8358	39.4	10667
4.5	346	9.5	994	14.5	1920	19.5	3124	24.5	4605	29.5	6364	34.5	8401	39.5	10716
4.6	356	9.6	1010	14.6	1941	19.6	3151	24.6	4638	29.6	6402	34.6	8445	39.6	10765
4.7	366	9.7	1026	14.7	1963	19.7	3178	24.7	4670	29.7	6441	34.7	8489	39.7	10815
4.8	377	9.8	1042	14.8	1984	19.8	3205	24.8	4703	29.8	6479	34.8	8532	39.8	10864
4.9	387	9.9	1058	14.9	2006	19.9	3232	24.9	4736	29.9	6517	34.9	8576	39.9	10913

TABLE NO. IV.

Side Triangles.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 14 feet wide. Side slopes 1½ to 1.

Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.
0.0	13.0	5.0	26.9	10.0	40.7	15.0	54.6	20.0	68.5	25.0	82.4	30.0	96.3	35.0	110.2
0.1	13.2	5.1	27.1	10.1	41.0	15.1	54.9	20.1	68.8	25.1	82.7	30.1	96.6	35.1	110.5
0.2	13.5	5.2	27.4	10.2	41.3	15.2	55.2	20.2	69.1	25.2	83.0	30.2	96.9	35.2	110.7
0.3	13.8	5.3	27.7	10.3	41.6	15.3	55.5	20.3	69.4	25.3	83.2	30.3	97.1	35.3	111.0
0.4	14.1	5.4	28.0	10.4	41.9	15.4	55.7	20.4	69.6	25.4	83.5	30.4	97.4	35.4	111.3
0.5	14.4	5.5	28.2	10.5	42.1	15.5	56.0	20.5	69.9	25.5	83.8	30.5	97.7	35.5	111.6
0.6	14.6	5.6	28.5	10.6	42.4	15.6	56.3	20.6	70.2	25.6	84.1	30 6	98.0	35.6	111.9
0.7	14.9	5.7	28.8	10.7	42.7	15.7	56.6	20.7	70.5	25.7	84.4	30.7	98.2	35.7	112.1
0.8	15.2	5.8	29.1	10.8	43.0	15.8	56.9	20.8	70.7	25.8	84.6	30.8	98.5	35.8	112.4
0.9	15.5	5.9	29.4	10.9	43.2	15.9	57.1	20.9	71.0	25.9	84.9	30.9	98.8	35.9	112.7
1.0	15.7	6.0	29.6	11.0	43.5	16.0	57.4	21.0	71.3	26.0	85.2	31.0	99.1	36.0	113.0
1.1	16.0	6.1	29.9	11.1	43.8	16.1	57.7	21.1	71.6	26.1	85.5	31.1	99.4	36.1	113.2
1.2	16.3	6.2	30.2	11.2	44.1	16.2	58.0	21.2	71.9	26.2	85.7	31.2	99.6	36.2	113.5
1.3	16.6	6.3	30.5	11.3	44.4	16.3	58.2	21.3	72.1	26.3	86.0	31.3	99.9	36.3	113.8
1.4	16.9	6.4	30.7	11.4	44.6	16.4	58.5	21.4	72.4	26.4	86.3	31.4	100.2	36.4	114.1
1.5	17.1	6.5	31.0	11.5	44.9	16.5	58.8	21.5	72.7	26.5	86.6	31.5	100.5	36.5	114.4
1.6	17.4	6.6	31.3	11.6	45.2	16.6	59.1	21.6	73.0	26.6	86.9	31.6	100.7	36.6	114.6
1.7	17.7	6.7	31.6	11.7	45.5	16.7	59.4	21.7	73.2	26.7	87.1	31.7	101.0	36.7	114.9
1.8	18.0	6.8	31.9	11.8	45.7	16.8	59.6	21.8	73.5	26.8	87.4	31.8	101.3	36.8	115.2
1.9	18.2	6.9	32.1	11.9	46.0	16.9	59.9	21.9	73.8	26.9	87.7	31.9	101.6	36.9	115.5
2.0	18.5	7.0	32.4	12.0	46.3	17.0	60.2	22.0	74.1	27.0	88.0	32.0	101.9	37.0	115.7
2.1	18.8	7.1	32.7	12.1	46.6	17.1	60.5	22.1	74.4	27.1	88.2	32.1	102.1	37.1	116.0
2.2	19.1	7.2	33 0	12.2	46.9	17.2	60.7	22.2	74.6	27.2	88.5	32.2	102.4	37.2	116.3
2.3	19.4	7.3	33.2	12.3	47.1	17.3	61.0	22.3	74.9	27.3	88.8	32.3	102.7	37.3	116.6
2.4	19.6	7.4	33.5	12.4	47.4	17.4	61.3	22.4	75.2	27.4	89.1	32.4	103.0	37.4	116.9
2.5	19.9	7.5	33.8	12.5	47.7	17.5	61.6	22.5	75.5	27.5	89.4	32.5	103.2	37.5	117.1
2.6	20.2	7.6	34.1	12.6	48.0	17.6	61.9	22.6	75.7	27.6	89.6	32.6	103.5	37.6	117.4
2.7	20.5	7.7	34.4	12.7	48.2	17.7	62.1	22.7	76.0	27.7	89.9	32.7	103.8	37.7	117.7
2.8	20.7	7.8	34.6	12.8	48.5	17.8	62.4	22.8	76.3	27.8	90.2	32.8	104.1	37.8	118.0
2.9	21.0	7.9	34.9	12.9	48.8	17.9	62.7	22.9	76.6	27.9	90.5	32.9	104.4	37.9	118.2
3.0	21.3	8.0	35.2	13.0	49.1	18.0	63.0	23.0	76.9	28.0	90.7	33.0	104.6	38.0	118.5
3.1	21 6	8.1	35.5	13.1	49.4	18.1	63.2	23.1	77.1	28.1	91.0	33.1	104.9	38.1	118.8
3.2	21.9	8.2	35.7	13.2	49.6	18.2	63.5	23.2	77.4	28.2	91.3	33.2	105.2	38.2	119.1
3.3	22.1	8.3	36.0	13.3	49.9	18.3	63.8	23.3	77.7	28.3	91.6	33.3	105.5	38.3	119.4
3.4	22.4	8.4	36.3	13.4	50.2	18.4	64.1	23.4	78.0	28.4	91.9	33.4	105.7	38.4	119.6
3.5	22.7	8.5	36.6	13.5	50.5	18.5	64.4	23.5	78.2	28.5	92.1	33.5	106.0	38.5	119.9
3.6	23.0	8.6	36.9	13.6	50.7	18.6	64.6	23.6	78.5	28.6	92.4	33.6	106.3	38.6	120.2
3.7	23.2	8.7	37.1	13.7	51.0	18.7	64.9	23.7	78.8	28.7	92.7	33.7	106.6	38.7	120.5
3.8	23.5	8.8	37.4	13.8	51.3	18.8	65.2	23.8	79.1	28.8	93.0	33.8	106 9	38.8	120.7
3.9	23.8	8.9	37.7	13.9	51.6	18.9	65.5	23.9	79.4	28.9	93.2	33.9	107.1	38.9	121.0
4.0	24.1	9.0	38.0	14.0	51.9	19.0	65.7	24.0	79.6	29.0	93.5	34.0	107.4	39.0	121.3
4.1	24.4	9.1	38.2	14.1	52.1	19.1	66.0	24.1	79.9	29.1	93.8	34.1	107.7	39.1	121.6
4.2	24.6	9.2	38.5	14.2	52.4	19.2	66.3	24.2	80.2	29.2	94.1	34.2	108.0	39.2	121.9
4.3	24.9	9.3	38.8	14.3	52.7	19.3	66.6	24.3	80.5	29.3	94.4	34.3	108.2	39.3	122.1
4.4	25.2	9.4	39.1	14.4	53.0	19.4	66.9	24.4	80.7	29.4	94.6	34.4	108.5	39.4	122.4
4.5	25.5	9.5	39.4	14.5	53.2	19.5	67.1	24.5	81.0	29.5	94.9	34.5	108.8	39.5	122.7
4.6	25.7	9.6	39.6	14.6	53.5	19.6	67.4	24.6	81.3	29.6	95 2	34.6	109.1	39.6	123.0
4.7	26.0	9.7	39.9	14.7	53.8	19.7	67.7	24.7	81.6	29.7	95.5	34.7	109.4	39.7	123.2
4.8	26.3	9.8	40.2	14.8	54.1	19.8	68.0	24.8	81.9	29.8	95.7	34.8	109.6	39.8	123.5
4.9	26.6	9.9	40.5	14.9	54.4	19.9	68.2	24.9	82.1	29.9	96.0	34.9	109.9	39.9	123.8

TABLE NO. V.

Level Cross Sections.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 18 feet wide. Side slopes 1½ to 1.

Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.
0.0	0	5.0	472	10.0	1222	15.0	2250	20.0	3556	25.0	5139	30.0	7000	35.0	9139
0.1	7	5.1	485	10.1	1240	15.1	2273	20 1	3585	25.1	5173	30.1	7040	35.1	9185
0.2	14	5.2	497	10.2	1258	15.2	2297	20.2	3614	25.2	5208	30.2	7080	35.2	9230
0.3	21	5.3	509	10.3	1276	15.3	2321	20.3	3643	25.3	5243	30.3	7121	35.3	9276
0.4	28	5.4	522	10.4	1294	15.4	2344	20.4	3672	25.4	5278	30.4	7161	35.4	9322
0.5	35	5.5	535	10.5	1313	15.5	2368	20.5	3701	25.5	5313	30.5	7201	35.5	9368
0.6	42	5.6	548	10.6	1331	15.6	2392	20.6	3731	25.6	5348	30.6	7242	35.6	9414
0.7	49	5.7	561	10.7	1349	15.7	2416	20.7	3761	25.7	5383	30.7	7283	35.7	9461
0.8	57	5.8	574	10.8	1368	15.8	2440	20.8	3790	25.8	5418	30.8	7324	35.8	9507
0.9	65	5.9	587	10.9	1387	15.9	2465	20.9	3820	25.9	5453	30.9	7365	35.9	9553
1.0	72	6.0	600	11.0	1406	16.0	2489	21.0	3850	26.0	5489	31.0	7406	36.0	9600
1.1	80	6.1	613	11.1	1425	16.1	2513	21.1	3880	26.1	5525	31.1	7447	36.1	9647
1.2	88	6.2	627	11.2	1444	16.2	2538	21.2	3910	26.2	5560	31.2	7488	36.2	9694
1.3	96	6.3	641	11.3	1463	16.3	2563	21.3	3941	26.3	5596	31.3	7529	36.3	9741
1.4	104	6.4	654	11.4	1482	16.4	2588	21.4	3971	26.4	5632	31.4	7571	36.4	9788
1.5	113	6.5	668	11.5	1501	16.5	2613	21.5	4001	26.5	5668	31.5	7613	36.5	9835
1.6	121	6.6	682	11.6	1521	16.6	2638	21.6	4032	26.6	5704	31.6	7654	36.6	9882
1.7	129	6.7	696	11.7	1541	16.7	2663	21.7	4063	26.7	5741	31.7	7696	36.7	9929
1.8	138	6.8	710	11.8	1560	16.8	2688	21.8	4094	26.8	5777	31.8	7738	36.8	9977
1.9	147	6.9	725	11.9	1580	16.9	2713	21.9	4125	26.9	5813	31.9	7780	36.9	10025
2.0	156	7.0	739	12.0	1600	17.0	2739	22.0	4156	27.0	5850	32.0	7822	37.0	10072
2.1	165	7.1	753	12.1	1620	17.1	2765	22.1	4187	27.1	5887	32.1	7865	37.1	10120
2.2	174	7.2	768	12.2	1640	17.2	2790	22.2	4218	27.2	5924	32.2	7907	37.2	10168
2.3	183	7.3	783	12.3	1661	17.3	2816	22.3	4249	27.3	5961	32.3	7949	37.3	10216
2.4	192	7.4	798	12.4	1681	17.4	2842	22.4	4281	27.4	5998	32.4	7992	37.4	10264
2.5	201	7.5	813	12.5	1701	17.5	2868	22.5	4313	27.5	6035	32.5	8035	37.5	10313
2.6	211	7.6	828	12.6	1722	17.6	2894	22.6	4344	27.6	6072	32.6	8078	37.6	10361
2.7	221	7.7	843	12.7	1743	17.7	2921	22.7	4376	27.7	6109	32.7	8121	37.7	10409
2.8	230	7.8	858	12.8	1764	17.8	2947	22.8	4408	27.8	6147	32.8	8164	37.8	10458
2.9	240	7.9	873	12.9	1785	17.9	2973	22.9	4440	27.9	6185	32.9	8207	37.9	10507
3.0	250	8.0	889	13.0	1806	18.0	3000	23.0	4472	28.0	6222	33.0	8250	38.0	10556
3.1	260	8.1	905	13.1	1827	18.1	3027	23.1	4505	28.1	6260	33.1	8293	38.1	10605
3.2	270	8.2	920	13.2	1848	18.2	3054	23.2	4537	28.2	6298	33.2	8337	38.2	10654
3.3	281	8.3	936	13.3	1869	18.3	3081	23.3	4569	28.3	6336	33.3	8381	38.3	10703
3.4	291	8.4	952	13.4	1891	18.4	3108	23.4	4602	28.4	6374	33.4	8424	38.4	10752
3.5	301	8.5	968	13.5	1913	18.5	3135	23.5	4635	28.5	6413	33.5	8468	38.5	10801
3.6	312	8.6	984	13.6	1934	18.6	3162	23.6	4668	28.6	6451	33.6	8512	38.6	10851
3.7	323	8.7	1001	13.7	1956	18.7	3189	23.7	4701	28.7	6489	33.7	8556	38.7	10901
3.8	334	8.8	1017	13.8	1978	18.8	3217	23.8	4734	28.8	6528	33.8	8600	38.8	10950
3.9	345	8.9	1033	13.9	2000	18.9	3245	23.9	4767	28.9	6567	33.9	8645	38.9	11000
4.0	356	9.0	1050	14.0	2022	19.0	3272	24.0	4800	29.0	6606	34.0	8689	39.0	11050
4.1	367	9.1	1067	14.1	2045	19.1	3300	24.1	4833	29.1	6645	34.1	8733	39.1	11100
4.2	378	9.2	1084	14.2	2067	19.2	3328	24.2	4867	29.2	6684	34.2	8778	39.2	11150
4.3	389	9.3	1101	14.3	2089	19.3	3356	24.3	4901	29.3	6723	34.3	8823	39.3	11201
4.4	401	9.4	1118	14.4	2112	19.4	3384	24.4	4934	29.4	6762	34.4	8868	39.4	11251
4.5	413	9.5	1135	14.5	2135	19.5	3413	24.5	4968	29.5	6801	34.5	8913	39.5	11301
4.6	424	9.6	1152	14.6	2158	19.6	3441	24.6	5002	29.6	6841	34.6	8958	39.6	11352
4.7	436	9.7	1169	14.7	2181	19.7	3469	24.7	5036	29.7	6881	34.7	9003	39.7	11403
4.8	448	9.8	1187	14.8	2204	19.8	3498	24.8	5070	29.8	6920	34.8	9048	39.8	11454
4.9	460	9.9	1205	14.9	2227	19.9	3527	24.9	5105	29.9	6960	34.9	9093	39.9	11505

TABLE NO. VI.

Side Triangles.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 18 feet wide. Side slopes 1½ to 1.

Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.
0.0	16.7	5.0	30.6	10.0	44.4	15.0	58.3	20.0	72.2	25.0	86.1	30.0	100.0	35.0	113.9
0.1	16.9	5.1	30.8	10.1	44.7	15.1	58.6	20.1	72.5	25.1	86.4	30.1	100.3	35.1	114.2
0.2	17.2	5.2	31.1	10.2	45.0	15.2	58.9	20.2	72.8	25.2	86.7	30.2	100.6	35.2	114.4
0.3	17.5	5.3	31.4	10.3	45.3	15.3	59.2	20.3	73.1	25.3	86.9	30.3	100.8	35.3	114.7
0.4	17.8	5.4	31.7	10.4	45.6	15.4	59.4	20.4	73.3	25.4	87.2	30.4	101.1	35.4	115.0
0.5	18.1	5.5	31.9	10.5	45.8	15.5	59.7	20.5	73.6	25.5	87.5	30.5	101.4	35.5	115.3
0.6	18.3	5.6	32.2	10.6	46.1	15.6	60.0	20.6	73.9	25.6	87.8	30.6	101.7	35.6	115.6
0.7	18.6	5.7	32.5	10.7	46.4	15.7	60.3	20.7	74.2	25.7	88.1	30.7	101.9	35.7	115.8
0.8	18.9	5.8	32.8	10.8	46.7	15.8	60.6	20.8	74.4	25.8	88.3	30.8	102.2	35.8	116.1
0.9	19.2	5.9	33.1	10.9	46.9	15.9	60.8	20.9	74.7	25.9	88.6	30.9	102.5	35.9	116.4
1.0	19.4	6.0	33.3	11.0	47.2	16 0	61.1	21.0	75.0	26.0	88.9	31.0	102.8	36.0	116.7
1.1	19.7	6.1	33.6	11.1	47.5	16.1	61.4	21.1	75.3	26.1	89.2	31.1	103.1	36.1	116.9
1.2	20.0	6.2	33.9	11.2	47.8	16.2	61.7	21.2	75.6	26.2	89.4	31.2	103.3	36.2	117.2
1.3	20.3	6.3	34.2	11.3	48.1	16.3	61.9	21.3	75.8	26.3	89.7	31.3	103.6	36.3	117.5
1.4	20.6	6.4	34.4	11.4	48.3	16.4	62.2	21.4	76.1	26.4	90.0	31.4	103.9	36.4	117.8
1.5	20.8	6.5	34.7	11.5	48.6	16.5	62.5	21.5	76.4	26.5	90.3	31.5	104.2	36.5	118.1
1.6	21.1	6.6	35.0	11.6	48.9	16.6	62.8	21.6	76.7	26.6	90.6	31.6	104.4	36.6	118.3
1.7	21.4	6.7	35.3	11.7	49.2	16.7	63.1	21.7	76.9	26.7	90.8	31.7	104.7	36.7	118.6
1.8	21.7	6.8	35.6	11.8	49.4	16.8	63.3	21.8	77.2	26.8	91.1	31.8	105.0	36.8	118.9
1.9	21.9	6.9	35.8	11.9	49.7	16.9	63.6	21.9	77.5	26.9	91.4	31.9	105.3	36.9	119.2
2.0	22.2	7.0	36.1	12.0	50.0	17.0	63.9	22.0	77.8	27.0	91.7	32.0	105.6	37.0	119.4
2.1	22.5	7.1	36.4	12.1	50.3	17.1	64.2	22.1	78.1	27.1	91.9	32.1	105.8	37.1	119.7
2.2	22.8	7.2	36.7	12.2	50.6	17.2	64.4	22.2	78.3	27.2	92.2	32.2	106.1	37.2	120.0
2.3	23.1	7.3	36.9	12.3	50.8	17.3	64.7	22.3	78.6	27.3	92.5	32.3	106.4	37.3	120.3
2.4	23.3	7.4	37.2	12.4	51.1	17.4	65.0	22.4	78.9	27.4	92.8	32.4	106.7	37.4	120.6
2.5	23.6	7.5	37.5	12.5	51.4	17.5	65.3	22.5	79.2	27.5	93.1	32.5	106.9	37.5	120.8
2.6	23.9	7.6	37.8	12.6	51.7	17.6	65.6	22.6	79.4	27.6	93.3	32.6	107.2	37.6	121.1
2.7	24.2	7.7	38.1	12.7	51.9	17.7	65.8	22.7	79.7	27.7	93.6	32.7	107.5	37.7	121.4
2.8	24.4	7.8	38.3	12.8	52.2	17.8	66.1	22.8	80 0	27.8	93.9	32.8	107.8	37.8	121.7
2.9	24.7	7.9	38.6	12.9	52.5	17.9	66.4	22.9	80.3	27.9	94.2	32.9	108.1	37.9	121.9
3.0	25.0	8.0	38.9	13.0	52.8	18.0	66.7	23.0	80.6	28.0	94.4	33.0	108.3	38.0	122.2
3.1	25.3	8.1	39.2	13.1	53.1	18.1	66.9	23.1	80.8	28.1	94.7	33.1	108.6	38.1	122.5
3.2	25.6	8.2	39.4	13.2	53.3	18.2	67.2	23.2	81.1	28.2	95.0	33.2	108.9	38.2	122.8
3.3	25.8	8.3	39.7	13.3	53.6	18.3	67.5	23.3	81.4	28.3	95.3	33.3	109.2	38.3	123.1
3.4	26.1	8.4	40.0	13.4	53.9	18.4	67.8	23.4	81.7	28.4	95.6	33.4	109.4	38.4	123.3
3.5	26.4	8.5	40.3	13.5	54.2	18.5	68.1	23.5	81.9	28.5	95.8	33.5	109.7	38.5	123.6
3.6	26.7	8.6	40.6	13.6	54.4	18.6	68.3	23.6	82.2	28.6	96.1	33.6	110.0	38.6	123.9
3.7	26.9	8.7	40.8	13.7	54.7	18.7	68.6	23.7	82.5	28.7	96.4	33.7	110.3	38.7	124.2
3.8	27.2	8.8	41.1	13.8	55.0	18.8	68.9	23.8	82.8	28.8	96.7	33.8	110.6	38.8	124.4
3.9	27.5	8.9	41.4	13.9	55.3	18.9	69.2	23.9	83.1	28.9	96.9	33.9	110.8	38.9	124.7
4.0	27.8	9.0	41.7	14.0	55.6	19.0	69.4	24.0	83.3	29.0	97.2	34.0	111.1	39.0	125.0
4.1	28.1	9.1	41.9	14.1	55.8	19.1	69.7	24.1	83.6	29.1	97.5	34.1	111 4	39.1	125.3
4.2	28.3	9.2	42.2	14.2	56.1	19.2	70.0	24.2	83.9	29.2	97.8	34.2	111.7	39.2	125.6
4.3	28.6	9.3	42.5	14.3	56.4	19.3	70.3	24.3	84.2	29.3	98.1	34.3	111.9	39.3	125.8
4.4	28.9	9.4	42.8	14.4	56.7	19.4	70.6	24.4	84.4	29.4	98.3	34.4	112.2	39.4	126.1
4.5	29.2	9.5	43.1	14.5	56.9	19.5	70.8	24.5	84.7	29.5	98.6	34.5	112.5	39.5	126.4
4.6	29.4	9.6	43.3	14.6	57.2	19.6	71.1	24.6	85.0	29.6	98.9	34.6	112.8	39 6	126.7
4.7	29.7	9.7	43.6	14.7	57.5	19.7	71.4	24.7	85.3	29.7	99.2	34.7	113.1	39.7	126.9
4.8	30.0	9.8	43.9	14.8	57.8	19.8	71.7	24.8	85.6	29.8	99.4	34.8	113.3	39.8	127.2
4.9	30.3	9.9	44.2	14.9	58.1	19.9	71 9	24.9	85.8	29.9	99.7	34.9	113.6	39.9	127.5

TABLE NO. VII.

Level Cross Sections.

CUBIC YARDS IN CORRESPONDING PRISMS, 100 FEET LONG.

Road-bed, 24 feet wide. Side slopes, 1½ to 1.

Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.
0.0	0	5.0	583	10.0	1444	15.0	2583	20.0	4000	25.0	5694	30.0	7667	35.0	9917
0.1	9	5.1	598	10.1	1465	15.1	2609	20.1	4031	25.1	5731	30.1	7709	35.1	9965
0.2	18	5.2	612	10.2	1485	15.2	2635	20.2	4062	25.2	5768	30.2	7751	35.2	10012
0.3	27	5.3	627	10.3	1505	15.3	2661	20.3	4094	25.3	5805	30.3	7794	35.3	10061
0.4	36	5.4	642	10.4	1525	15.4	2686	20.4	4125	25.4	5842	30.4	7836	35.4	10109
0.5	46	5.5	657	10.5	1546	15.5	2713	20.5	4157	25.5	5879	30.5	7879	35.5	10157
0.6	55	5.6	672	10.6	1566	15.6	2739	20.6	4189	25.6	5916	30.6	7922	35.6	10205
0.7	65	5.7	687	10.7	1587	15.7	2765	20.7	4221	25.7	5954	30.7	7965	35.7	10254
0.8	75	5.8	702	10.8	1608	15.8	2791	20.8	4252	25.8	5991	30.8	8008	35.8	10302
0.9	85	5.9	718	10.9	1629	15.9	2818	20.9	4285	25.9	6029	30.9	8051	35.9	10351
1.0	94	6.0	733	11.0	1650	16.0	2844	21.0	4317	26.0	6067	31.0	8094	36.0	10400
1.1	105	6.1	749	11.1	1671	16.1	2871	21.1	4349	26.1	6105	31.1	8138	36.1	10449
1.2	115	6.2	765	11.2	1692	16.2	2898	21.2	4381	26.2	6142	31.2	8181	36.2	10498
1.3	125	6.3	781	11.3	1714	16.3	2925	21.3	4414	26.3	6181	31.3	8225	36.3	10547
1.4	135	6.4	796	11.4	1735	16.4	2952	21.4	4446	26.4	6219	31.4	8269	36.4	10596
1.5	146	6.5	813	11.5	1757	16.5	2979	21.5	4479	26.5	6257	31.5	8313	36.5	10646
1.6	156	6.6	829	11.6	1779	16.6	3006	21.6	4512	26.6	6295	31.6	8356	36.6	10695
1.7	167	6.7	845	11.7	1801	16.7	3034	21.7	4545	26.7	6334	31.7	8401	36.7	10745
1.8	178	6.8	861	11.8	1822	16.8	3061	21.8	4578	26.8	6372	31.8	8445	36.8	10795
1.9	189	6.9	878	11.9	1845	16.9	3089	21.9	4611	26.9	6411	31.9	8489	36.9	10845
2.0	200	7.0	894	12.0	1867	17.0	3117	22.0	4644	27.0	6450	32.0	8533	37.0	10894
2.1	211	7.1	911	12.1	1889	17.1	3145	22.1	4678	27.1	6489	32.1	8578	37.1	10945
2.2	222	7.2	928	12.2	1911	17.2	3172	22.2	4711	27.2	6528	32.2	8622	37.2	10995
2.3	234	7.3	945	12.3	1934	17.3	3201	22.3	4745	27.3	6567	32.3	8667	37.3	11045
2.4	245	7.4	962	12.4	1956	17.4	3229	22.4	4779	27.4	6606	32.4	8712	37.4	11095
2.5	257	7.5	979	12.5	1979	17.5	3257	22.5	4813	27.5	6646	32.5	8757	37.5	11146
2.6	269	7.6	996	12.6	2002	17.6	3285	22.6	4846	27.6	6685	32.6	8802	37.6	11196
2.7	281	7.7	1014	12.7	2025	17.7	3314	22.7	4881	27.7	6725	32.7	8847	37.7	11247
2.8	292	7.8	1031	12.8	2048	17.8	3342	22.8	4915	27.8	6765	32.8	8892	37.8	11298
2.9	305	7.9	1049	12.9	2071	17.9	3371	22.9	4949	27.9	6805	32.9	8938	37.9	11349
3.0	317	8.0	1067	13.0	2094	18.0	3400	23.0	4983	28.0	6844	33.0	8983	38.0	11400
3.1	329	8.1	1085	13.1	2118	18.1	3429	23.1	5018	28.1	6885	33.1	9029	38.1	11451
3.2	341	8.2	1102	13.2	2141	18.2	3458	23.2	5052	28.2	6925	33.2	9075	38.2	11502
3.3	354	8.3	1121	13.3	2165	18.3	3487	23.3	5087	28.3	6965	33.3	9121	38.3	11554
3.4	366	8.4	1139	13.4	2189	18.4	3516	23.4	5122	28.4	7005	33.4	9166	38.4	11605
3.5	379	8.5	1157	13.5	2213	18.5	3546	23.5	5157	28.5	7046	33.5	9213	38.5	11657
3.6	392	8.6	1175	13.6	2236	18.6	3575	23.6	5192	28.6	7086	33.6	9259	38.6	11709
3.7	405	8.7	1194	13.7	2261	18.7	3605	23.7	5227	28.7	7127	33.7	9305	38.7	11761
3.8	418	8.8	1212	13.8	2285	18.8	3635	23.8	5262	28.8	7168	33.8	9351	38.8	11813
3.9	431	8.9	1231	13.9	2309	18.9	3665	23.9	5298	28.9	7209	33.9	9398	38.9	11865
4.0	444	9.0	1250	14.0	2333	19.0	3694	24.0	5333	29.0	7250	34.0	9444	39.0	11917
4.1	458	9.1	1269	14.1	2358	19.1	3725	24.1	5369	29.1	7291	34.1	9491	39.1	11969
4.2	471	9.2	1288	14.2	2382	19.2	3755	24.2	5405	29.2	7332	34.2	9538	39.2	12021
4.3	485	9.3	1307	14.3	2407	19.3	3785	24.3	5441	29.3	7374	34.3	9585	39.3	12074
4.4	499	9.4	1326	14.4	2432	19.4	3815	24.4	5476	29.4	7415	34.4	9632	39.4	12126
4.5	513	9.5	1346	14.5	2457	19.5	3846	24.5	5513	29.5	7457	34.5	9679	39.5	12179
4.6	526	9.6	1365	14.6	2482	19.6	3876	24.6	5549	29.6	7499	34.6	9726	39.6	12232
4.7	541	9.7	1385	14.7	2507	19.7	3907	24.7	5585	29.7	7541	34.7	9774	39.7	12285
4.8	555	9.8	1405	14.8	2532	19.8	3938	24.8	5621	29.8	7582	34.8	9821	39.8	12338
4.9	569	9.9	1425	14.9	2558	19.9	3969	24.9	5658	29.9	7625	34.9	9869	39.9	12391

TABLE NO. VIII.

Side Triangles.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 24 feet wide. Side slopes 1½ to 1.

Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.
0.0	22.2	5.0	36.1	10.0	50.0	15.0	63.9	20.0	77.8	25.0	91.7	30.0	105.6	35.0	119.4
0.1	22.5	5.1	36.4	10.1	50.3	15.1	64.2	20.1	78.1	25.1	91.9	30.1	105.8	35.1	119.7
0.2	22.8	5.2	36.7	10.2	50.6	15.2	64.4	20.2	78.3	25.2	92.2	30.2	106.1	35.2	120.0
0.3	23.1	5.3	36.9	10.3	50.8	15.3	64.7	20.3	78.6	25.3	92.5	30.3	106.4	35.3	120.3
0.4	23.3	5.4	37.2	10.4	51.1	15.4	65.0	20.4	78.9	25.4	92.8	30.4	106.7	35.4	120.6
0.5	23.6	5.5	37.5	10.5	51.4	15.5	65.3	20.5	79.2	25.5	93.1	30.5	106.9	35.5	120.8
0.6	23.9	5.6	37.8	10.6	51.7	15.6	65.6	20.6	79.4	25.6	93.3	30.6	107.2	35.6	121.1
0.7	24.2	5.7	38.1	10.7	51.9	15.7	65.8	20.7	79.7	25.7	93.6	30.7	107.5	35.7	121.4
0.8	24.4	5.8	38.3	10.8	52.2	15.8	66.1	20.8	80.0	25.8	93.9	30.8	107.8	35.8	121.7
0.9	24.7	5.9	38.6	10.9	52.5	15.9	66.4	20.9	80.3	25.9	94.2	30.9	108.1	35.9	121.9
1.0	25.0	6.0	38.9	11.0	52.8	16.0	66.7	21.0	80.6	26.0	94.4	31.0	108.3	36.0	122.2
1.1	25.3	6.1	39.2	11.1	53.1	16.1	66.9	21.1	80.8	26.1	94.7	31.1	108.6	36.1	122.5
1.2	25.6	6.2	39.4	11.2	53.3	16.2	67.2	21.2	81.1	26.2	95.0	31.2	108.9	36.2	122.8
1.3	25.8	6.3	39.7	11.3	53.6	16.3	67.5	21.3	81.4	26.3	95.3	31.3	109.2	36.3	123.1
1.4	26.1	6.4	40.0	11.4	53.9	16.4	67.8	21.4	81.7	26.4	95.6	31.4	109.4	36.4	123.3
1.5	26.4	6.5	40.3	11.5	54.2	16.5	68.1	21.5	81.9	26.5	95.8	31.5	109.7	36.5	123.6
1.6	26.7	6.6	40.6	11.6	54.4	16.6	68.3	21.6	82.2	26.6	96.1	31.6	110.0	36.6	123.9
1.7	26.9	6.7	40.8	11.7	54.7	16.7	68.6	21.7	82.5	26.7	96.4	31.7	110.3	36.7	124.2
1.8	27.2	6.8	41.1	11.8	55.0	16.8	68.9	21.8	82.8	26.8	96.7	31.8	110.6	36.8	124.4
1.9	27.5	6.9	41.4	11.9	55.3	16.9	69.2	21.9	83.1	26.9	96.9	31.9	110.8	36.9	124.7
2.0	27.8	7.0	41.7	12.0	55.6	17.0	69.4	22.0	83.3	27.0	97.2	32.0	111.1	37.0	125.0
2.1	28.1	7.1	41.9	12.1	55.8	17.1	69.7	22.1	83.6	27.1	97.5	32.1	111.4	37.1	125.3
2.2	28.3	7.2	42.2	12.2	56.1	17.2	70.0	22.2	83.9	27.2	97.8	32.2	111.7	37.2	125.6
2.3	28.6	7.3	42.5	12.3	56.4	17.3	70.3	22.3	84.2	27.3	98.1	32.3	111.9	37.3	125.8
2.4	28.9	7.4	42.8	12.4	56.7	17.4	70.6	22.4	84.4	27.4	98.3	32.4	112.2	37.4	126.1
2.5	29.2	7.5	43.1	12.5	56.9	17.5	70.8	22.5	84.7	27.5	98.6	32.5	112.5	37.5	126.4
2.6	29.4	7.6	43.3	12.6	57.2	17.6	71.1	22.6	85.0	27.6	98.9	32.6	112.8	37.6	126.7
2.7	29.7	7.7	43.6	12.7	57.5	17.7	71.4	22.7	85.3	27.7	99.2	32.7	113.1	37.7	126.9
2.8	30.0	7.8	43.9	12.8	57.8	17.8	71.7	22.8	85.6	27.8	99.4	32.8	113.3	37.8	127.2
2.9	30.3	7.9	44.2	12.9	58.1	17.9	71.9	22.9	85.8	27.9	99.7	32.9	113.6	37.9	127.5
3.0	30.6	8.0	44.4	13.0	58.3	18.0	72.2	23.0	86.1	28.0	100.0	33.0	113.9	38.0	127.8
3.1	30.8	8.1	44.7	13.1	58.6	18.1	72.5	23.1	86.4	28.1	100.3	33.1	114.2	38.1	128.1
3.2	31.1	8.2	45.0	13.2	58.9	18.2	72.8	23.2	86.7	28.2	100.6	33.2	114.4	38.2	128.3
3.3	31.4	8.3	45.3	13.3	59.2	18.3	73.1	23.3	86.9	28.3	100.8	33.3	114.7	38.3	128.6
3.4	31.7	8.4	45.6	13.4	59.4	18.4	73.3	23.4	87.2	28.4	101.1	33.4	115.0	38.4	128.9
3.5	31.9	8.5	45.8	13.5	59.7	18.5	73.6	23.5	87.5	28.5	101.4	33.5	115.3	38.5	129.2
3.6	32.2	8.6	46.1	13.6	60.0	18.6	73.9	23.6	87.8	28.6	101.7	33.6	115.6	38.6	129.4
3.7	32.5	8.7	46.4	13.7	60.3	18.7	74.2	23.7	88.1	28.7	101.9	33.7	115.8	38.7	129.7
3.8	32.8	8.8	46.7	13.8	60.6	18.8	74.4	23.8	88.3	28.8	102.2	33.8	116.1	38.8	130.0
3.9	33.1	8.9	46.9	13.9	60.8	18.9	74.7	23.9	88.6	28.9	102.5	33.9	116.4	38.9	130.3
4.0	33.3	9.0	47.2	14.0	61.1	19.0	75.0	24.0	88.9	29.0	102.8	34.0	116.7	39.0	130.6
4.1	33.6	9.1	47.5	14.1	61.4	19.1	75.3	24.1	89.2	29.1	103.1	34.1	116.9	39.1	130.8
4.2	33.9	9.2	47.8	14.2	61.7	19.2	75.6	24.2	89.4	29.2	103.3	34.2	117.2	39.2	131.1
4.3	34.2	9.3	48.1	14.3	61.9	19.3	75.8	24.3	89.7	29.3	103.6	34.3	117.5	39.3	131.4
4.4	34.4	9.4	48.3	14.4	62.2	19.4	76.1	24.4	90.0	29.4	103.9	34.4	117.8	39.4	131.7
4.5	34.7	9.5	48.6	14.5	62.5	19.5	76.4	24.5	90.3	29.5	104.2	34.5	118.1	39.5	131.9
4.6	35.0	9.6	48.9	14.6	62.8	19.6	76.7	24.6	90.6	29.6	104.4	34.6	118.3	39.6	132.2
4.7	35.3	9.7	49.2	14.7	63.1	19.7	76.9	24.7	90.8	29.7	104.7	32.7	118.6	39.7	132.5
4.8	35.6	9.8	49.4	14.8	63.3	19.8	77.2	24.8	91.1	29.8	105.0	34.8	118.9	39.8	132.8
4.9	35.8	9.9	49.7	14.9	63.6	19.9	77.5	24.9	91.4	29.9	105.3	34.9	119.2	39.9	133.1

TABLE NO. IX.

Level Cross Sections.

CUBIC YARDS IN CORRESPONDING PRISMS, 100 FEET LONG.

Road-bed 26 feet wide. Side slopes 1½ to 1.

Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.
0.0	0	5.0	620	10.0	1519	15.0	2694	20.0	4148	25.0	5880	30.0	7889	35.0	10176
0.1	10	5.1	636	10.1	1539	15.1	2721	20.1	4180	25.1	5917	30.1	7932	35.1	10225
0.2	19	5.2	651	10.2	1560	15.2	2747	20.2	4212	25.2	5955	30.2	7975	35.2	10273
0.3	29	5.3	666	10.3	1581	15.3	2774	20.3	4244	25.3	5992	30.3	8018	35.3	10322
0.4	39	5.4	682	10.4	1602	15.4	2801	20.4	4276	25.4	6030	30.4	8062	35.4	10371
0.5	50	5.5	698	10.5	1624	15.5	2827	20.5	4309	25.5	6068	30.5	8105	35.5	10420
0.6	60	5.6	713	10.6	1645	15.6	2854	20.6	4341	25.6	6106	30.6	8149	35.6	10469
0.7	70	5.7	729	10.7	1666	15.7	2881	20.7	4374	25.7	6144	30.7	8192	35.7	10518
0.8	81	5.8	745	10.8	1688	15.8	2908	20.8	4407	25.8	6182	30.8	8236	35.8	10568
0.9	91	5.9	762	10.9	1710	15.9	2936	20.9	4439	25.9	6221	30.9	8280	35.9	10617
1.0	102	6.0	778	11.0	1731	16.0	2963	21.0	4472	26.0	6259	31.0	8324	36.0	10667
1.1	113	6.1	794	11.1	1753	16.1	2990	21.1	4505	26.1	6298	31.1	8368	36.1	10716
1.2	124	6.2	811	11.2	1775	16.2	3018	21.2	4538	26.2	6337	31.2	8412	36.2	10766
1.3	135	6.3	827	11.3	1798	16.3	3046	21.3	4572	26.3	6375	31.3	8457	36.3	10816
1.4	146	6.4	844	11.4	1820	16.4	3073	21.4	4605	26.4	6414	31.4	8501	36.4	10866
1.5	157	6.5	861	11.5	1842	16.5	3101	21.5	4638	26.5	6453	31.5	8546	36.5	10916
1.6	168	6.6	878	11.6	1865	16.6	3129	21.6	4672	26.6	6492	31.6	8591	36.6	10966
1.7	180	6.7	895	11.7	1887	16.7	3158	21.7	4706	26.7	6532	31.7	8635	36.7	11017
1.8	191	6.8	912	11.8	1910	16.8	3186	21.8	4739	26.8	6571	31.8	8680	36.8	11067
1.9	203	6.9	929	11.9	1933	16.9	3214	21.9	4773	26.9	6610	31.9	8725	36.9	11118
2.0	215	7.0	946	12.0	1956	17.0	3243	22.0	4807	27.0	6650	32.0	8770	37.0	11169
2.1	227	7.1	964	12.1	1979	17.1	3271	22.1	4842	27.1	6690	32.1	8816	37.1	11219
2.2	239	7.2	981	12.2	2002	17.2	3300	22.2	4876	27.2	6729	32.2	8861	37.2	11270
2.3	251	7.3	999	12.3	2025	17.3	3329	22.3	4910	27.3	6769	32.3	8906	37.3	11321
2.4	263	7.4	1017	12.4	2048	17.4	3358	22.4	4945	27.4	6809	32.4	8952	37.4	11372
2.5	275	7.5	1035	12.5	2072	17.5	3387	22.5	4979	27.5	6850	32.5	8998	37.5	11424
2.6	288	7.6	1053	12.6	2095	17.6	3416	22.6	5014	27.6	6890	32.6	9043	37.6	11475
2.7	301	7.7	1071	12.7	2119	17.7	3445	22.7	5049	27.7	6930	32.7	9089	37.7	11526
2.8	313	7.8	1089	12.8	2143	17.8	3474	22.8	5084	27.8	6971	32.8	9135	37.8	11578
2.9	326	7.9	1107	12.9	2167	17.9	3504	22.9	5119	27.9	7011	32.9	9182	37.9	11630
3.0	339	8.0	1126	13.0	2191	18.0	3533	23.0	5154	28.0	7052	33.0	9228	38.0	11681
3.1	352	8.1	1145	13.1	2215	18.1	3563	23.1	5189	28.1	7093	33.1	9274	38.1	11733
3.2	365	8.2	1163	13.2	2239	18.2	3593	23.2	5224	28.2	7134	33.2	9321	38.2	11785
3.3	378	8.3	1182	13.3	2263	18.3	3623	23.3	5260	28.3	7175	33.3	9367	38.3	11838
3.4	392	8.4	1201	13.4	2288	18.4	3653	23.4	5295	28.4	7216	33.4	9414	38.4	11890
3.5	405	8.5	1220	13.5	2313	18.5	3683	23.5	5331	28.5	7257	33.5	9461	38.5	11942
3.6	419	8.6	1239	13.6	2337	18.6	3713	23.6	5367	28.6	7298	33.6	9508	38.6	11995
3.7	432	8.7	1258	13.7	2362	18.7	3743	23.7	5403	28.7	7340	33.7	9555	38.7	12047
3.8	446	8.8	1278	13.8	2387	18.8	3774	23.8	5439	28.8	7381	33.8	9602	38.8	12100
3.9	460	8.9	1297	13.9	2412	18.9	3805	23.9	5475	28.9	7423	33.9	9649	38.9	12153
4.0	474	9.0	1317	14.0	2437	19.0	3835	24.0	5511	29.0	7465	34.0	9696	39.0	12206
4.1	488	9.1	1336	14.1	2462	19.1	3866	24.1	5547	29.1	7507	34.1	9744	39.1	12259
4.2	502	9.2	1356	14.2	2488	19.2	3897	24.2	5584	29.2	7549	34.2	9791	39.2	12312
4.3	517	9.3	1376	14.3	2513	19.3	3928	24.3	5621	29.3	7591	34.3	9839	39.3	12365
4.4	531	9.4	1396	14.4	2539	19.4	3959	24.4	5657	29.4	7633	34.4	9887	39.4	12418
4.5	546	9.5	1416	14.5	2564	19.5	3990	24.5	5694	29.5	7675	34.5	9935	39.5	12472
4.6	561	9.6	1436	14.6	2590	19.6	4022	24.6	5731	29.6	7718	34.6	9983	39.6	12525
4.7	575	9.7	1457	14.7	2616	19.7	4053	24.7	5768	29.7	7761	34.7	10031	39.7	12579
4.8	590	9.8	1477	14.8	2642	19.8	4085	24.8	5805	29.8	7803	34.8	10079	39.8	12633
4.9	605	9.9	1498	14.9	2668	19.9	4116	24.9	5842	29.9	7846	34.9	10127	39.9	12687

TABLE NO. X.

Side Triangles.

CUBIC YARDS IN CORRESPONDING PRISMS, 100 FEET LONG.

Road-bed 26 feet wide. Side slopes 1½ to 1.

Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.
0.0	24.1	5.0	38.0	10.0	51.9	15.0	65.7	20.0	79.6	25.0	93.5	30.0	107.4	35.0	121.3
0.1	24.4	5.1	38.2	10.1	52.1	15.1	66.0	20.1	79.9	25.1	93.8	30.1	107.7	35.1	121.6
0.2	24.6	5.2	38.5	10.2	52.4	15.2	66.3	20.2	80.2	25.2	94.1	30.2	108.0	35.2	121.9
0.3	24.9	5.3	38.8	10.3	52.7	15.3	66.6	20.3	80.5	25.3	94.4	30.3	108.2	35.3	122.1
0.4	25.2	5.4	39.1	10.4	53.0	15.4	66.9	20.4	80.7	25.4	94.6	30.4	108.5	35.4	122.4
0.5	25.5	5.5	39.4	10.5	53.2	15.5	67.1	20.5	81.0	25.5	94.9	30.5	108.8	35.5	122.7
0.6	25.7	5.6	39.6	10.6	53.5	15.6	67.4	20.6	81.3	25.6	95.2	30.6	109.1	35.6	123.0
0.7	26.0	5.7	39.9	10.7	53.8	15.7	67.7	20.7	81.6	25.7	95.5	30.7	109.4	35.7	123.2
0.8	26.3	5.8	40.2	10.8	54.1	15.8	68.0	20.8	81.9	25.8	95.7	30.8	109.6	35.8	123.5
0.9	26.6	5.9	40.5	10.9	54.4	15.9	68.2	20.9	82.1	25.9	96.0	30.9	109.9	35.9	123.8
1.0	26.9	6.0	40.7	11.0	54.6	16.0	68.5	21.0	82.4	26.0	96.3	31.0	110.2	36.0	124.1
1.1	27.1	6.1	41.0	11.1	54.9	16.1	68.8	21.1	82.7	26.1	96.6	31.1	110.5	36.1	124.4
1.2	27.4	6.2	41.3	11.2	55.2	16.2	69.1	21.2	83.0	26.2	96.9	31.2	110.7	36.2	124.6
1.3	27.7	6.3	41.6	11.3	55.5	16.3	69.4	21.3	83.2	26.3	97.1	31.3	111.0	36.3	124.9
1.4	28.0	6.4	41.9	11.4	55.7	16.4	69.6	21.4	83.5	26.4	97.4	31.4	111.3	36.4	125.2
1.5	28.2	6.5	42.1	11.5	56.0	16.5	69.9	21.5	83.8	26.5	97.7	31.5	111.6	36.5	125.5
1.6	28.5	6.6	42.4	11.6	56.3	16.6	70.2	21.6	84.1	26.6	98.0	31.6	111.9	36.6	125.7
1.7	28.8	6.7	42.7	11.7	56.6	16.7	70.5	21.7	84.4	26.7	98.2	31.7	112.1	36.7	126.0
1.8	29.1	6.8	43.0	11.8	56.9	16.8	70.7	21.8	84.6	26.8	98.5	31.8	112.4	36.8	126.3
1.9	29.4	6.9	43.2	11.9	57.1	16.9	71.0	21.9	84.9	26.9	98.8	31.9	112.7	36.9	126.6
2.0	29.6	7.0	43.5	12.0	57.4	17.0	71.3	22.0	85.2	27.0	99.1	32.0	113.0	37.0	126.9
2.1	29.9	7.1	43.8	12.1	57.7	17.1	71.6	22.1	85.5	27.1	99.4	32.1	113.2	37.1	127.1
2.2	30.2	7.2	44.1	12.2	58.0	17.2	71.9	22.2	85.7	27.2	99.6	32.2	113.5	37.2	127.4
2.3	30.5	7.3	44.4	12.3	58.2	17.3	72.1	22.3	86.0	27.3	99.9	32.3	113.8	37.3	127.7
2.4	30.7	7.4	44.6	12.4	58.5	17.4	72.4	22.4	86.3	27.4	100.2	32.4	114.1	37.4	128.0
2.5	31.0	7.5	44.9	12.5	58.8	17.5	72.7	22.5	86.6	27.5	100.5	32.5	114.4	37.5	128.2
2.6	31.3	7.6	45.2	12.6	59.1	17.6	73.0	22.6	86.9	27.6	100.7	32.6	114.6	37.6	128.5
2.7	31.6	7.7	45.5	12.7	59.4	17.7	73.2	22.7	87.1	27.7	101.0	32.7	114.9	37.7	128.8
2.8	31.9	7.8	45.7	12.8	59.6	17.8	73.5	22.8	87.4	27.8	101.3	32.8	115.2	37.8	129.1
2.9	32.1	7.9	46.0	12.9	59.9	17.9	73.8	22.9	87.7	27.9	101.6	32.9	115.5	37.9	129.4
3.0	32.4	8.0	46.3	13.0	60.2	18.0	74.1	23.0	88.0	28.0	101.9	33.0	115.7	38.0	129.6
3.1	32.7	8.1	46.6	13.1	60.5	18.1	74.4	23.1	88.2	28.1	102.1	33.1	116.0	38.1	129.9
3.2	33.0	8.2	46.9	13.2	60.7	18.2	74.6	23.2	88.5	28.2	102.4	33.2	116.3	38.2	130.2
3.3	33.2	8.3	47.1	13.3	61.0	18.3	74.9	23.3	88.8	28.3	102.7	33.3	116.6	38.3	130.5
3.4	33.5	8.4	47.4	13.4	61.3	18.4	75.2	23.4	89.1	28.4	103.0	33.4	116.9	38.4	130.7
3.5	33.8	8.5	47.7	13.5	61.6	18.5	75.5	23.5	89.4	28.5	103.2	33.5	117.1	38.5	131.0
3.6	34.1	8.6	48.0	13.6	61.9	18.6	75.7	23.6	89.6	28.6	103.5	33.6	117.4	38.6	131.3
3.7	34.4	8.7	48.2	13.7	62.1	18.7	76.0	23.7	89.9	28.7	103.8	33.7	117.7	38.7	131.6
3.8	34.6	8.8	48.5	13.8	62.4	18.8	76.3	23.8	90.2	28.8	104.1	33.8	118.0	38.8	131.9
3.9	34.9	8.9	48.8	13.9	62.7	18.9	76.6	23.9	90.5	28.9	104.4	33.9	118.2	38.9	132.1
4.0	35.2	9.0	49.1	14.0	63.0	19.0	76.9	24.0	90.7	29.0	104.6	34.0	118.5	39.0	132.4
4.1	35.5	9.1	49.4	14.1	63.2	19.1	77.1	24.1	91.0	29.1	104.9	34.1	118.8	39.1	132.7
4.2	35.7	9.2	49.6	14.2	63.5	19.2	77.4	24.2	91.3	29.2	105.2	34.2	119.1	39.2	133.0
4.3	36.0	9.3	49.9	14.3	63.8	19.3	77.7	24.3	91.6	29.3	105.5	34.3	119.4	39.3	133.2
4.4	36.3	9.4	50.2	14.4	64.1	19.4	78.0	24.4	91.9	29.4	105.7	34.4	119.6	39.4	133.5
4.5	36.6	9.5	50.5	14.5	64.4	19.5	78.2	24.5	92.1	29.5	106.0	34.5	119.9	39.5	133.8
4.6	36.9	9.6	50.7	14.6	64.6	19.6	78.5	24.6	92.4	29.6	106.3	34.6	120.2	39.6	134.1
4.7	37.1	9.7	51.0	14.7	64.9	19.7	78.8	24.7	92.7	29.7	106.6	34.7	120.5	39.7	134.4
4.8	37.4	9.8	51.3	14.8	65.2	19.8	79.1	24.8	93.0	29.8	106.9	34.8	120.7	39.8	134.6
4.9	37.7	9.9	51.6	14.9	65.5	19.9	79.4	24.9	93.2	29.9	107.1	34.9	121.0	39.9	134.9

TABLE NO. XI.

Level Cross Sections.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 16 feet wide. Side slopes 1 to 1.

Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.
0.0	0	5.0	389	10.0	963	15.0	1722	20.0	2667	25.0	3796	30.0	5111	35.0	6611
0.1	6	5.1	399	10.1	976	15.1	1739	20.1	2687	25.1	3821	30.1	5139	35.1	6643
0.2	12	5.2	408	10.2	990	15.2	1756	20.2	2708	25.2	3845	30.2	5168	35.2	6675
0.3	18	5.3	418	10.3	1003	15.3	1774	20.3	2729	25.3	3870	30.3	5196	35.3	6707
0.4	24	5.4	428	10.4	1017	15.4	1791	20.4	2750	25.4	3895	30.4	5224	35.4	6739
0.5	31	5.5	438	10.5	1031	15.5	1808	20.5	2771	25.5	3919	30.5	5253	35.5	6771
0.6	37	5.6	448	10.6	1044	15.6	1826	20.6	2792	25.6	3944	30.6	5281	35.6	6804
0.7	43	5.7	458	10.7	1058	15.7	1843	20.7	2814	25.7	3969	30.7	5310	35.7	6836
0.8	50	5.8	468	10.8	1072	15.8	1861	20.8	2835	25.8	3994	30.8	5339	35.8	6868
0.9	56	5.9	479	10.9	1086	15.9	1879	20.9	2856	25.9	4019	30.9	5367	35.9	6901
1.0	63	6.0	489	11.0	1100	16.0	1896	21.0	2878	26.0	4044	31.0	5396	36.0	6933
1.1	70	6.1	499	11.1	1114	16.1	1914	21.1	2899	26.1	4070	31.1	5425	36.1	6966
1.2	76	6.2	510	11.2	1128	16.2	1932	21.2	2921	26.2	4095	31 2	5454	36.2	6999
1.3	83	6.3	520	11.3	1143	16.3	1950	21.3	2943	26.3	4120	31.3	5483	36.3	7031
1.4	90	6.4	531	11.4	1157	16.4	1968	21.4	2964	26.4	4146	31.4	5512	36.4	7064
1.5	97	6.5	542	11.5	1171	16.5	1986	21.5	2986	26.5	4171	31.5	5542	36.5	7097
1.6	104	6.6	552	11.6	1186	16.6	2004	21.6	3008	26.6	4197	31.6	5571	36.6	7130
1.7	111	6.7	563	11.7	1200	16.7	2023	21.7	3030	26.7	4223	31.7	5600	36.7	7163
1.8	119	6.8	574	11.8	1215	16.8	2041	21.8	3052	26.8	4248	31.8	5630	36.8	7196
1.9	126	6.9	585	11.9	1230	16.9	2059	21.9	3074	26.9	4274	31.9	5659	36.9	7230
2.0	133	7.0	596	12.0	1244	17.0	2078	22.0	3096	27.0	4300	32 0	5689	37.0	7263
2.1	141	7.1	607	12.1	1259	17.1	2096	22.1	3119	27.1	4326	32.1	5719	37.1	7296
2.2	148	7.2	619	12.2	1274	17.2	2115	22.2	3141	27.2	4352	32.2	5748	37.2	7330
2.3	156	7.3	630	12.3	1289	17.3	2134	22.3	3163	27.3	4378	32.3	5778	37.3	7363
2.4	164	7.4	641	12.4	1304	17.4	2152	22.4	3186	27.4	4404	32.4	5808	37.4	7397
2.5	171	7.5	653	12.5	1319	17.5	2171	22.5	3208	27.5	4431	32.5	5838	37.5	7431
2.6	179	7.6	664	12.6	1335	17.6	2190	22.6	3231	27.6	4457	32.6	5868	37.6	7464
2.7	187	7.7	676	12.7	1350	17.7	2209	22.7	3254	27.7	4483	32.7	5898	37.7	7498
2.8	195	7.8	688	12.8	1365	17.8	2228	22.8	3276	27.8	4510	32.8	5928	37.8	7532
2.9	203	7.9	699	12.9	1381	17.9	2247	22.9	3299	27.9	4536	32.9	5959	37.9	7566
3.0	211	8.0	711	13.0	1396	18.0	2267	23.0	3322	28.0	4563	33.0	5989	38.0	7600
3.1	219	8.1	723	13.1	1412	18.1	2286	23.1	3345	28.1	4590	33.1	6019	38.1	7634
3.2	228	8.2	735	13.2	1428	18.2	2305	23.2	3368	28.2	4616	33.2	6050	38.2	7668
3.3	236	8.3	747	13.3	1443	18.3	2325	23.3	3391	28.3	4643	33.3	6080	38.3	7703
3.4	244	8.4	759	13.4	1459	18.4	2344	23.4	3415	28.4	4670	33 4	6111	38.4	7737
3.5	253	8.5	771	13.5	1475	18.5	2364	23.5	3438	28.5	4697	33.5	6142	38.5	7771
3.6	261	8.6	784	13.6	1491	18.6	2384	23.6	3461	28.6	4724	33.6	6172	38.6	7806
3.7	270	8.7	796	13.7	1507	18.7	2403	23.7	3485	28.7	4751	33.7	6203	38.7	7840
3.8	279	8.8	808	13.8	1523	18.8	2423	23.8	3508	28.8	4779	33.8	6234	38.8	7875
3.9	287	8.9	821	13.9	1539	18.9	2443	23.9	3532	28.9	4806	33.9	6265	38.9	7910
4.0	296	9.0	833	14.0	1556	19.0	2463	24.0	3556	29.0	4833	34.0	6296	39.0	7944
4.1	305	9.1	846	14.1	1572	19.1	2483	24.1	3579	29.1	4861	34.1	6327	39.1	7979
4.2	314	9.2	859	14.2	1588	19.2	2503	24.2	3603	29.2	4888	34.2	6359	39.2	8014
4 3	323	9.3	871	14.3	1605	19.3	2523	24.3	3627	29.3	4916	34.3	6390	39.3	8049
4.4	332	9.4	884	14.4	1621	19.4	2544	24.4	3651	29.4	4944	34.4	6421	39.4	8084
4.5	342	9.5	897	14.5	1638	19.5	2564	24.5	3675	29.5	4971	34.5	6453	39.5	8119
4.6	351	9.6	910	14.6	1655	19.6	2584	24.6	3699	29.6	4999	34.6	6484	39.6	8155
4.7	360	9.7	923	14.7	1671	19.7	2605	24.7	3723	29.7	5027	34.7	6516	39.7	8190
4.8	370	9.8	936	14.8	1688	19.8	2625	24.8	3748	29.8	5055	34 8	6548	39.8	8225
4.9	379	9.9	950	14.9	1705	19.9	2646	24.9	3772	29.9	5083	34.9	6579	39.9	8261

TABLE NO. XII.

Side Triangles.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 16 feet wide. Side slopes 1 to 1.

Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.
0 0	14.8	5.0	24.1	10.0	33.3	15.0	42.6	20.0	51.9	25.0	61.1	30.0	70.4	35.0	79.6
0.1	15.0	5.1	24.3	10.1	33.5	15.1	42.8	20.1	52.0	25.1	61.3	30.1	70.6	35.1	79.8
0.2	15.2	5.2	24.4	10.2	33.7	15 2	43.0	20.2	52.2	25.2	61.5	30.2	70.7	35.2	80.0
0.3	15.4	5.3	24.6	10.3	33.9	15.3	43.1	20.3	52.4	25.3	61.7	30.3	70.9	35.3	80.2
0.4	15.6	5.4	24.8	10.4	34.1	15.4	43.3	20.4	52.6	25.4	61.9	30.4	71.1	35.4	80.4
0.5	15.7	5.5	25.0	10.5	34.3	15.5	43.5	20.5	52.8	25.5	62.0	30.5	71.3	35.5	80.6
0.6	15.9	5.6	25.2	10.6	34.4	15.6	43.7	20.6	53.0	25.6	62.2	30.6	71.5	35.6	80.7
0.7	16.1	5.7	25.4	10.7	34.6	15.7	43.9	20.7	53.1	25.7	62.4	30.7	71.7	35.7	80.9
0.8	16.3	5.8	25.6	10.8	34.8	15.8	44.1	20.8	53.3	25.8	62.6	30.8	71.9	35.8	81.1
0.9	16.5	5.9	25.7	10.9	35.0	15.9	44.3	20.9	53.5	25.9	62.8	30.9	72.0	35.9	81.3
1.0	16.7	6.0	25.9	11.0	35.2	16.0	44.4	21.0	53.7	26.0	63.0	31.0	72.2	36.0	81.5
1.1	16.9	6.1	26.1	11.1	35.4	16.1	44.6	21.1	53.9	26.1	63.1	31.1	72.4	36.1	81.7
1.2	17.0	6.2	26.3	11.2	35.6	16.2	44.8	21.2	54.1	26.2	63.3	31.2	72.6	36.2	81.9
1.3	17.2	6.3	26.5	11.3	35.7	16.3	45.0	21.3	54.3	26.3	63.5	31.3	72.8	36.3	82.0
1.4	17.4	6.4	26.7	11.4	35.9	16.4	45.2	21.4	54.4	26.4	63.7	31.4	73.0	36.4	82.2
1.5	17.6	6.5	26.9	11.5	36.1	16.5	45.4	21.5	54.6	26.5	63.9	31.5	73.1	36.5	82.4
1.6	17.8	6.6	27.0	11.6	36.3	16.6	45.6	21.6	54.8	26.6	64.1	31.6	73.3	36.6	82.6
1.7	18.0	6.7	27.2	11.7	36.5	16.7	45.7	21.7	55.0	26.7	64.3	31.7	73.5	36.7	82.8
1.8	18.1	6.8	27.4	11.8	36.7	16.8	45.9	21.8	55.2	26.8	64.4	31.8	73.7	36.8	83.0
1.9	18.3	6.9	27.6	11.9	36.9	16.9	46.1	21.9	55.4	26.9	64.6	31.9	73.9	36.9	83.1
2.0	18.5	7.0	27.8	12.0	37.0	17.0	46.3	22.0	55.6	27.0	64.8	32.0	74.1	37.0	83.3
2.1	18.7	7.1	28.0	12.1	37.2	17.1	46.5	22.1	55.7	27.1	65.0	32.1	74.3	37.1	83.5
2.2	18.9	7.2	28.1	12.2	37.4	17.2	46.7	22.2	55.9	27.2	65.2	32.2	74.4	37.2	83.7
2.3	19.1	7.3	28.3	12.3	37.6	17.3	46.9	22.3	56.1	27.3	65.4	32.3	74.6	37.3	83.9
2.4	19.3	7.4	28.5	12.4	37.8	17.4	47.0	22.4	56.3	27.4	65.6	32.4	74.8	37.4	84.1
2.5	19.4	7.5	28.7	12.5	38.0	17.5	47.2	22.5	56.5	27.5	65.7	32.5	75.0	37.5	84.3
2.6	19.6	7.6	28.9	12.6	38.1	17.6	47.4	22.6	56.7	27.6	65.9	32.6	75.2	37.6	84.4
2.7	19.8	7.7	29.1	12.7	38.3	17.7	47.6	22.7	56.9	27.7	66.1	32.7	75.4	37.7	84.6
2.8	20.0	7.8	29.3	12.8	38.5	17.8	47.8	22.8	57.0	27.8	66.3	32.8	75.6	37.8	84.8
2.9	20.2	7.9	29.4	12.9	38.7	17.9	48.0	22.9	57.2	27.9	66.5	32.9	75.7	37.9	85.0
3.0	20.4	8.0	29.6	13.0	38.9	18.0	48.1	23.0	57.4	28.0	66.7	33.0	75.9	38.0	85.2
3.1	20.6	8.1	29.8	13.1	39.1	18.1	48.3	23.1	57.6	28.1	66.9	33.1	76.1	38.1	85.4
3.2	20.7	8.2	30.0	13.2	39.3	18.2	48.5	23.2	57.8	28.2	67.0	33.2	76.3	38.2	85.6
3.3	20.9	8.3	30.2	13.3	39.4	18.3	48.7	23.3	58.0	28.3	67.2	33.3	76.5	38.3	85.7
3.4	21.1	8.4	30.4	13.4	39.6	18.4	48.9	23.4	58.1	28.4	67.4	33.4	76.7	38.4	85.9
3.5	21.3	8.5	30.6	13.5	39.8	18.5	49.1	23.5	58.3	28.5	67.6	33.5	76.9	38.5	86.1
3.6	21.5	8.6	30.7	13.6	40.0	18.6	49.3	23.6	58.5	28.6	67.8	33.6	77.0	38.6	86.3
3.7	21.7	8.7	30.9	13.7	40.2	18.7	49.4	23.7	58.7	28.7	68.0	33.7	77.2	38.7	86.5
3.8	21.9	8.8	31.1	13.8	40.4	18.8	49.6	23.8	58.9	28.8	68.1	33.8	77.4	38.8	86.7
3.9	22.0	8.9	31.3	13.9	40.6	18.9	49.8	23.9	59.1	28.9	68.3	33.9	77.6	38.9	86.9
4.0	22.2	9.0	31.5	14.0	40.7	19.0	50.0	24.0	59.3	29.0	68.5	34.0	77.8	39.0	87.0
4.1	22.4	9.1	31.7	14.1	40.9	19.1	50.2	24.1	59.4	29.1	68.7	34.1	78.0	39.1	87.2
4.2	22.6	9.2	31.9	14.2	41.1	19.2	50.4	24.2	59.6	29.2	68.9	34.2	78.1	39.2	87.4
4.3	22.8	9.3	32.0	14.3	41.3	19.3	50.6	24.3	59.8	29.3	69.1	34.3	78.3	39.3	87.6
4.4	23.0	9.4	32.2	14.4	41.5	19.4	50.7	24.4	60.0	29.4	69.3	34.4	78.5	39.4	87.8
4.5	23.1	9.5	32.4	14.5	41.7	19.5	50.9	24.5	60.2	29.5	69.4	34.5	78.7	39.5	88.0
4.6	23.3	9.6	32.6	14.6	41.9	19.6	51.1	24.6	60.4	29.6	69.6	34.6	78.9	39.6	88.1
4.7	23.5	9 7	32.8	14.7	42.0	19.7	51.3	24.7	60.6	29.7	69.8	34.7	79.1	39.7	88.3
4.8	23.7	9.8	33.0	14.8	42.2	19.8	51.5	24.8	60.7	29.8	70.0	34.8	79.3	39.8	88.5
4.9	23.9	9.9	33.1	14.9	42.4	19.9	51.7	24.9	60.9	29.9	70.2	34.9	79.4	39.9	88.7

TABLE NO. XIII.

Level Cross Sections.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 20 feet wide. Side slopes 1 to 1.

Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.
0.0	0	5.0	463	10.0	1111	15.0	1944	20.0	2963	25.0	4167	30.0	5556	35.0	7130
0.1	7	5.1	474	10.1	1126	15.1	1963	20.1	2985	25.1	4193	30.1	5585	35.1	7163
0.2	15	5.2	485	10.2	1141	15.2	1982	20.2	3008	25.2	4219	30.2	5615	35.2	7196
0.3	23	5.3	497	10.3	1156	15.3	2000	20.3	3030	25.3	4245	30.3	5645	35.3	7230
0.4	30	5.4	508	10.4	1171	15.4	2019	20.4	3052	25.4	4271	30.4	5675	35.4	7264
0.5	38	5.5	519	10.5	1186	15.5	2038	20.5	3075	25.5	4297	30.5	5705	35.5	7297
0.6	46	5.6	531	10.6	1201	15.6	2057	20.6	3098	25.6	4324	30.6	5735	35.6	7331
0.7	54	5.7	543	10.7	1217	15.7	2076	20.7	3120	25.7	4350	30.7	5765	35.7	7365
0 8	62	5.8	554	10.8	1232	15.8	2095	20.8	3143	25.8	4376	30.8	5795	35.8	7399
0.9	70	5.9	566	10.9	1247	15.9	2114	20.9	3166	25.9	4403	30.9	5825	35.9	7433
1.0	78	6.0	578	11.0	1263	16.0	2133	21.0	3189	26.0	4430	31.0	5856	36.0	7467
1.1	86	6.1	590	11.1	1279	16.1	2153	21.1	3212	26.1	4456	31.1	5886	36.1	7501
1.2	94	6.2	602	11.2	1294	16.2	2172	21.2	3235	26.2	4483	31.2	5916	36.2	7535
1.3	103	6.3	614	11.3	1310	16.3	2191	21.3	3258	26.3	4510	31.3	5947	36.3	7569
1.4	111	6.4	626	11.4	1326	16.4	2211	21.4	3281	26.4	4537	31.4	5978	36.4	7604
1.5	119	6.5	638	11.5	1342	16.5	2231	21.5	3305	26.5	4564	31.5	6008	36.5	7638
1.6	128	6.6	650	11.6	1358	16.6	2250	21.6	3328	26.6	4591	31.6	6039	36.6	7673
1.7	137	6.7	663	11.7	1374	16.7	2270	21.7	3351	26.7	4618	31.7	6070	36.7	7707
1.8	145	6.8	675	11.8	1390	16.8	2290	21.8	3375	26.8	4645	31.8	6101	36.8	7742
1.9	154	6.9	687	11.9	1406	16.9	2310	21.9	3399	26.9	4673	31.9	6132	36.9	7776
2.0	163	7.0	700	12.0	1422	17.0	2330	22.0	3422	27.0	4700	32.0	6163	37.0	7811
2.1	172	7.1	713	12.1	1439	17.1	2350	22.1	3446	27.1	4727	32.1	6194	37.1	7846
2.2	181	7.2	725	12.2	1455	17.2	2370	22.2	3470	27.2	4755	32.2	6225	37.2	7881
2.3	190	7.3	738	12.3	1471	17.3	2390	22.3	3494	27.3	4783	32.3	6257	37.3	7916
2.4	199	7.4	751	12.4	1488	17.4	2410	22.4	3518	27.4	4810	32.4	6288	37.4	7951
2.5	208	7.5	764	12.5	1505	17.5	2431	22.5	3542	27.5	4838	32.5	6319	37.5	7986
2.6	218	7.6	777	12.6	1521	17.6	2451	22.6	3566	27.6	4866	32.6	6351	37.6	8021
2.7	227	7.7	790	12.7	1538	17.7	2471	22.7	3590	27.7	4894	32.7	6383	37.7	8057
2.8	236	7.8	803	12.8	1555	17.8	2492	22.8	3614	27.8	4922	32.8	6414	37.8	8092
2.9	246	7.9	816	12.9	1572	17.9	2513	22.9	3639	27.9	4950	32.9	6446	37.9	8127
3.0	256	8.0	830	13.0	1589	18.0	2533	23.0	3663	28.0	4978	33.0	6478	38.0	8163
3.1	265	8.1	843	13.1	1606	18.1	2554	23.1	3687	28.1	5006	33.1	6510	38.1	8199
3.2	275	8.2	856	13.2	1623	18.2	2575	23.2	3712	28.2	5034	33.2	6542	38.2	8234
3.3	285	8.3	870	13.3	1640	18.3	2596	23.3	3737	28.3	5063	33.3	6574	38.3	8270
3.4	295	8.4	884	13.4	1658	18.4	2617	23.4	3761	28.4	5091	33.4	6606	38.4	8306
3.5	305	8.5	897	13.5	1675	18.5	2638	23.5	3786	28.5	5119	33.5	6638	38.5	8342
3.6	315	8.6	911	13.6	1692	18.6	2659	23.6	3811	28.6	5148	33.6	6670	38.6	8378
3.7	325	8.7	925	13.7	1710	18.7	2680	23.7	3836	28.7	5177	33.7	6703	38.7	8414
3.8	335	8.8	939	13.8	1728	18.8	2702	23.8	3861	28.8	5205	33.8	6735	38.8	8450
3.9	345	8.9	953	13.9	1745	18.9	2723	23.9	3886	28.9	5234	33.9	6767	38.9	8486
4.0	356	9.0	967	14.0	1763	19.0	2744	24.0	3911	29.0	5263	34.0	6800	39.0	8522
4.1	366	9.1	981	14.1	1781	19.1	2766	24.1	3936	29.1	5292	34.1	6833	39.1	8559
4.2	376	9.2	995	14.2	1799	19.2	2788	24.2	3962	29.2	5321	34.2	6865	39.2	8595
4.3	387	9.3	1009	14.3	1817	19.3	2809	24.3	3987	29.3	5350	34.3	6898	39.3	8631
4.4	398	9.4	1024	14.4	1835	19.4	2831	24.4	4012	29.4	5379	34.4	6931	39.4	8668
4.5	408	9.5	1038	14.5	1853	19.5	2853	24.5	4038	29.5	5408	34.5	6964	39.5	8705
4.6	419	9.6	1052	14.6	1871	19.6	2875	24.6	4064	29.6	5438	34.6	6997	39.6	8741
4.7	430	9.7	1067	14.7	1889	19.7	2897	24.7	4089	29.7	5467	34.7	7030	39.7	8778
4 8	441	9.8	1082	14.8	1908	19.8	2919	24.8	4115	29.8	5496	34.8	7063	39.8	8815
4 9	452	9.9	1096	14 9	1926	19.9	2941	24.9	4141	29.9	5526	34.9	7096	39.9	8852

TABLE NO. XIV.

Side Triangles.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 20 feet wide. Side slopes 1 to 1.

Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.
0.0	18.5	5.0	27.8	10.0	37.0	15.0	46.3	20.0	55.6	25.0	64.8	30.0	74.1	35.0	83.3
0.1	18.7	5.1	28.0	10.1	37.2	15.1	46.5	20.1	55.7	25.1	65.0	30.1	74.3	35.1	83.5
0.2	18.9	5.2	28.1	10.2	37.4	15.2	46.7	20.2	55.9	25.2	65.2	30.2	74.4	35.2	83.7
0.3	19.1	5.3	28.3	10.3	37.6	15.3	46.9	20.3	56.1	25.3	65.4	30.3	74.6	35.3	83.9
0.4	19.3	5.4	28.5	10.4	37.8	15.4	47.0	20.4	56.3	25.4	65.6	30.4	74.8	35.4	84.1
0.5	19.4	5.5	28.7	10.5	38.0	15.5	47.2	20.5	56.5	25.5	65.7	30.5	75.0	35.5	84.3
0.6	19.6	5.6	28.9	10.6	38.1	15.6	47.4	20.6	56.7	25.6	65.9	30 6	75.2	35.6	84.4
0.7	19.8	5.7	29.1	10.7	38.3	15.7	47.6	20.7	56.9	25.7	66.1	30.7	75.4	35.7	84.6
0.8	20.0	5.8	29.3	10.8	38.5	15.8	47.8	20.8	57.0	25.8	66.3	30.8	75.6	35.8	84.8
0.9	20.2	5.9	29.4	10.9	38.7	15.9	48.0	20.9	57.2	25.9	66.5	30.9	75.7	35.9	85.0
1.0	20.4	6.0	29.6	11.0	38.9	16.0	48.1	21.0	57.4	26.0	66.7	31.0	75.9	36.0	85.2
1.1	20.6	6.1	29.8	11.1	39.1	16.1	48.3	21.1	57.6	26.1	66.9	31.1	76.1	36.1	85.4
1.2	20.7	6.2	30.0	11.2	39.3	16.2	48.5	21.2	57.8	26.2	67.0	31.2	76.3	36.2	85.6
1.3	20.9	6.3	30.2	11.3	39.4	16.3	48.7	21.3	58.0	26.3	67.2	31.3	76.5	36.3	85.7
1.4	21.1	6.4	30.4	11.4	39.6	16.4	48.9	21.4	58.1	26.4	67.4	31.4	76.7	36.4	85.9
1.5	21.3	6.5	30.6	11.5	39.8	16.5	49.1	21.5	58.3	26.5	67.6	31.5	76.9	36.5	86.1
1.6	21.5	6.6	30.7	11.6	40.0	16.6	49.3	21.6	58.5	26.6	67.8	31.6	77.0	36.6	86.3
1.7	21.7	6.7	30.9	11.7	40.2	16.7	49.4	21.7	58.7	26.7	68.0	31.7	77.2	36.7	86.5
1.8	21.9	6.8	31.1	11.8	40.4	16.8	49.6	21.8	58.9	26.8	68.1	31.8	77.4	36.8	86.7
1.9	22.0	6.9	31.3	11.9	40.6	16.9	49.8	21.9	59·1	26.9	68.3	31.9	77.6	36.9	86.9
2.0	22.2	7.0	31.5	12.0	40.7	17.0	50.0	22.0	59.3	27.0	68.5	32.0	77.8	37.0	87.0
2.1	22.4	7.1	31.7	12.1	40.9	17.1	50.2	22.1	59.4	27.1	68.7	32.1	78.0	37.1	87.2
2.2	22.6	7.2	31.9	12.2	41.1	17.2	50.4	22.2	59.6	27.2	68.9	32.2	78.1	37.2	87.4
2.3	22.8	7.3	32.0	12.3	41.3	17.3	50.6	22.3	59.8	27.3	69.1	32.3	78.3	37.3	87.6
2.4	23.0	7.4	32.2	12.4	41.5	17.4	50.7	22.4	60.0	27.4	69.3	32.4	78.5	37.4	87.8
2.5	23.1	7.5	32.4	12.5	41.7	17.5	50.9	22.5	60.2	27.5	69.4	32.5	78.7	37.5	88.0
2.6	23.3	7.6	32.6	12.6	41.9	17.6	51.1	22.6	60.4	27.6	69.6	32.6	78.9	37.6	88.1
2.7	23.5	7.7	32.8	12.7	42.0	17.7	51.3	22.7	60.6	27.7	69.8	32.7	79.1	37.7	88.3
2.8	23.7	7.8	33.0	12.8	42.2	17.8	51.5	22.8	60.7	27.8	70.0	32.8	79.3	37.8	88.5
2.9	23.9	7.9	33.1	12.9	42.4	17.9	51.7	22.9	60.9	27.9	70.2	32.9	79.4	37.9	88.7
3.0	24.1	8.0	33.3	13.0	42.6	18.0	51.9	23.0	61.1	28.0	70.4	33.0	79.6	38.0	88.9
3.1	24.3	8.1	33.5	13.1	42.8	18.1	52.0	23.1	61.3	28.1	70.6	33.1	79.8	38.1	89.1
3.2	24.4	8.2	33.7	13.2	43.0	18.2	52.2	23.2	61.5	28.2	70.7	33.2	80.0	38.2	89.3
3.3	24.6	8.3	33.9	13.3	43.1	18.3	52.4	23.3	61.7	28.3	70.9	33.3	80.2	38.3	89.4
3.4	24.8	8.4	34.1	13.4	43.3	18.4	52.6	23.4	61.9	28.4	71.1	33.4	80.4	38.4	89.6
3.5	25.0	8.5	34.3	13.5	43.5	18.5	52.8	23.5	62.0	28.5	71.3	33.5	80.6	38.5	89.8
3.6	25.2	8.6	34.4	13.6	43.7	18.6	53.0	23.6	62.2	28.6	71.5	33.6	80.7	38.6	90.0
3.7	25.4	8.7	34.6	13.7	43.9	18 7	53.1	23.7	62.4	28.7	71.7	33.7	80.9	38.7	90.2
3.8	25.6	8.8	34.8	13.8	44.1	18.8	53.3	23.8	62.6	28.8	71.9	33.8	81.1	38.8	90.4
3.9	25.7	8.9	35.0	13.9	44.3	18.9	53.5	23.9	62.8	28.9	72.0	33.9	81.3	38.9	90.6
4.0	25.9	9.0	35.2	14.0	44.4	19.0	53.7	24.0	63.0	29.0	72.2	34.0	81.5	39.0	90.7
4.1	26.1	9.1	35.4	14.1	44.6	19.1	53.9	24.1	63.1	29.1	72.4	34.1	81.7	39.1	90.9
4.2	26.3	9.2	35.6	14.2	44.8	19.2	54.1	24.2	63.3	29.2	72.6	34.2	81.9	39.2	91.1
4.3	26.5	9.3	35.7	14.3	45.0	19.3	54.3	24.3	63.5	29.3	72.8	34.3	82.0	39.3	91.3
4.4	26.7	9.4	35.9	14.4	45.2	19.4	54.4	24.4	63.7	29.4	73.0	34.4	82.2	39.4	91.5
4.5	26.9	9.5	36.1	14.5	45.4	19.5	54.6	24.5	63.9	29.5	73.1	34.5	82.4	39.5	91.7
4.6	27.0	9.6	36.3	14.6	45.6	19.6	54.8	24.6	64.1	29.6	73.3	34.6	82.6	39.6	91.9
4.7	27.2	9.7	36.5	14.7	45.7	19.7	55.0	24.7	64.3	29.7	73.5	34.7	82.8	39.7	92.0
4.8	27.4	9.8	36.7	14.8	45.9	19.8	55.2	24.8	64.4	29.8	73.7	34.8	83.0	39.8	92.2
4.9	27.6	9.9	36.9	14.9	46.1	19.9	55.4	24.9	64.6	29.9	73.9	34.9	83.1	39.9	92.4

TABLE NO. XV.

Level Cross Sections.

CUBIC YARDS IN CORRESPONDING PRISMS, 100 FEET LONG.

Road-bed, 24 feet wide. Side slopes, 1 to 1.

Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.
0.0	0	5.0	537	10.0	1259	15.0	2167	20.0	3259	25.0	4587	30.0	6000	35.0	7648
0.1	9	5.1	550	10.1	1276	15.1	2187	20.1	3283	25.1	4564	30.1	6031	35.1	7688
0.2	18	5.2	562	10.2	1292	15.2	2207	20.2	3307	25.2	4592	30.2	6062	35.2	7718
0.3	27	5.3	575	10.3	1308	15.3	2227	20.3	3331	25.3	4620	30.3	6094	35.3	7753
0.4	36	5.4	588	10.4	1325	15.4	2247	20.4	3355	25.4	4647	30.4	6125	35.4	7788
0.5	45	5.5	601	10.5	1342	15.5	2268	20.5	3379	25.5	4675	30.5	6156	35.5	7828
0.6	55	5.6	614	10.6	1358	15.6	2288	20.6	3403	25.6	4703	30.6	6188	35.6	7858
0.7	64	5.7	627	10.7	1375	15.7	2308	20.7	3427	25.7	4731	30.7	6220	35.7	7894
0.8	73	5.8	640	10.8	1392	15.8	2329	20.8	3451	25.8	4759	30.8	6251	35.8	7929
0.9	83	5.9	653	10.9	1409	15.9	2350	20.9	3476	25.9	4787	30.9	6283	35.9	7964
1.0	93	6.0	667	11.0	1426	16.0	2370	21.0	3500	26.0	4815	31.0	6315	36.0	8000
1.1	102	6.1	680	11.1	1443	16.1	2391	21.1	3524	26.1	4843	31.1	6347	36.1	8036
1.2	112	6.2	693	11.2	1460	16.2	2412	21.2	3549	26.2	4871	31.2	6379	36.2	8071
1.3	122	6.3	707	11.3	1477	16.3	2433	21.3	3574	26.3	4900	31.3	6411	36.3	8107
1.4	132	6.4	721	11.4	1495	16.4	2454	21.4	3598	26.4	4928	31.4	6443	36.4	8143
1.5	142	6.5	734	11.5	1512	16.5	2475	21.5	3623	26.5	4956	31.5	6475	36.5	8179
1.6	152	6.6	748	11.6	1529	16.6	2496	21.6	3648	26.6	4985	31.6	6507	36.6	8215
1.7	162	6.7	762	11.7	1547	16.7	2517	21.7	3673	26.7	5014	31.7	6540	36.7	8251
1.8	172	6.8	776	11.8	1565	16.8	2539	21.8	3698	26.8	5042	31.8	6572	36.8	8287
1.9	182	6.9	790	11.9	1582	16.9	2560	21.9	3723	26.9	5071	31.9	6604	36.9	8323
2.0	193	7.0	804	12.0	1600	17.0	2581	22.0	3748	27.0	5100	32.0	6637	37.0	8359
2.1	203	7.1	818	12.1	1618	17.1	2603	22.1	3773	27.1	5129	32.1	6670	37.1	8396
2.2	213	7.2	832	12.2	1636	17.2	2625	22.2	3799	27.2	5158	32.2	6702	37.2	8432
2.3	224	7.3	846	12.3	1654	17.3	2646	22.3	3824	27.3	5187	32.3	6735	37.3	8468
2.4	235	7.4	861	12.4	1672	17.4	2668	22.4	3849	27.4	5216	32.4	6768	37.4	8505
2.5	245	7.5	875	12.5	1690	17.5	2690	22.5	3875	27.5	5245	32.5	6801	37.5	8542
2.6	256	7.6	889	12.6	1708	17.6	2712	22.6	3901	27.6	5275	32.6	6834	37.6	8578
2.7	267	7.7	904	12.7	1726	17.7	2734	22.7	3926	27.7	5304	32.7	6867	37.7	8615
2.8	278	7.8	919	12.8	1745	17.8	2756	22.8	3952	27.8	5333	32.8	6900	37.8	8652
2.9	289	7.9	933	12.9	1763	17.9	2778	22.9	3978	27.9	5363	32.9	6933	37.9	8689
3.0	300	8.0	948	13.0	1781	18.0	2800	23.0	4004	28.0	5393	33.0	6967	38.0	8726
3.1	311	8.1	963	13.1	1800	18.1	2822	23.1	4030	28.1	5422	33.1	7000	38.1	8763
3.2	322	8.2	978	13.2	1819	18.2	2845	23.2	4056	28.2	5452	33.2	7033	38.2	8800
3.3	334	8.3	993	13.3	1837	18.3	2867	23.3	4082	28.3	5482	33.3	7067	38.3	8837
3.4	345	8.4	1008	13.4	1856	18.4	2889	23.4	4108	28.4	5512	33.4	7101	38.4	8875
3.5	356	8.5	1023	13.5	1875	18.5	2912	23.5	4134	28.5	5542	33.5	7134	38.5	8912
3.6	368	8.6	1038	13.6	1894	18.6	2935	23.6	4161	28.6	5572	33.6	7168	38.6	8949
3.7	380	8.7	1054	13.7	1913	18.7	2957	23.7	4187	28.7	5602	33.7	7202	38.7	8987
3.8	391	8.8	1069	13.8	1932	18.8	2980	23.8	4213	28.8	5632	33.8	7236	38.8	9025
3.9	403	8.9	1084	13.9	1951	18.9	3003	23.9	4240	28.9	5662	33.9	7270	38.9	9062
4.0	415	9.0	1100	14.0	1970	19.0	3026	24.0	4267	29.0	5693	34.0	7304	39.0	9100
4.1	427	9.1	1116	14.1	1990	19.1	3049	24.1	4293	29.1	5723	34.1	7338	39.1	9138
4.2	439	9.2	1131	14.2	2009	19.2	3072	24.2	4320	29.2	5753	34.2	7372	39.2	9176
4.3	451	9.3	1147	14.3	2028	19.3	3095	24.3	4347	29.3	5784	34.3	7406	39.3	9214
4.4	463	9.4	1163	14.4	2048	19.4	3118	24.4	4374	29.4	5815	34.4	7441	39.4	9252
4.5	475	9.5	1179	14.5	2068	19.5	3142	24.5	4401	29.5	5845	34.5	7475	39.5	9290
4.6	487	9.6	1195	14.6	2087	19.6	3165	24.6	4428	29.6	5876	34.6	7509	39.6	9328
4.7	500	9.7	1211	14.7	2107	19.7	3188	24.7	4455	29.7	5907	34.7	7544	39.7	9366
4.8	512	9.8	1227	14.8	2127	19.8	3212	24.8	4482	29.8	5938	34.8	7579	39.8	9405
4.9	524	9.9	1243	14.9	2147	19.9	3236	24.9	4510	29.9	5969	34.9	7613	39.9	9443

TABLE NO. XVI.

Side Triangles.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 24 feet wide. **Side slopes 1 to 1.**

Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.
0.0	22.2	5.0	31.5	10.0	40.7	15.0	50.0	20.0	59.3	25.0	68.5	30.0	77.8	35.0	87.0		
0.1	22 4	5.1	31.7	10.1	40.9	15.1	50.2	20.1	59.4	25.1	68.7	30.1	78.0	35.1	87.2		
0.2	22.6	5.2	31.9	10.2	41.1	15.2	50.4	20.2	59.6	25.2	68.9	30.2	78.1	35.2	87.4		
0.3	22.8	5.3	32.0	10.3	41.3	15.3	50.6	20.3	59.8	25.3	69.1	30.3	78.3	35.3	87.6		
0.4	23.0	5.4	32.2	10.4	41.5	15.4	50.7	20.4	60.0	25.4	69.3	30.4	78.5	35.4	87.8		
0.5	23.1	5.5	32.4	10.5	41.7	15.5	50.9	20.5	60.2	25.5	69.4	30.5	78.7	35.5	88.0		
0.6	23.3	5.6	32.6	10.6	41.9	15.6	51.1	20.6	60.4	25.6	69.6	30.6	78.9	35.6	88.1		
0.7	23.5	5.7	32.8	10.7	42.0	15.7	51.3	20.7	60.6	25.7	69.8	30.7	79.1	35.7	88.3		
0.8	23.7	5.8	33.0	10.8	42.2	15.8	51.5	20.8	60.7	25.8	70.0	30.8	79.3	35.8	88.5		
0.9	23.9	5.9	33.1	10.9	42.4	15.9	51.7	20.9	60.9	25.9	70.2	30.9	79.4	35.9	88.7		
1.0	24.1	6.0	33.3	11.0	42.6	16.0	51.9	21.0	61.1	26.0	70.4	31.0	79.6	36.0	88.9		
1.1	24.3	6.1	33.5	11.1	42.8	16.1	52.0	21.1	61.3	26.1	70.6	31.1	79.8	36.1	89.1		
1.2	24.4	6.2	33.7	11.2	43.0	16.2	52.2	21.2	61.5	26.2	70.7	31.2	80.0	36.2	89.3		
1.3	24.6	6.3	33.9	11.3	43.1	16.3	52.4	21.3	61.7	26.3	70.9	31.3	80.2	36.3	89.4		
1.4	24.8	6.4	34.1	11.4	43.3	16.4	52.6	21.4	61.9	26.4	71.1	31.4	80.4	36.4	89.6		
1.5	25.0	6.5	34.3	11.5	43.5	16.5	52.8	21.5	62.0	26.5	71.3	31.5	80.6	36.5	89.8		
1.6	25.2	6.6	34.4	11.6	43.7	16.6	53.0	21.6	62.2	26.6	71.5	31.6	80.7	36.6	90.0		
1.7	25.4	6.7	34.6	11.7	43.9	16.7	53.1	21.7	62.4	26.7	71.7	31.7	80.9	36.7	90.2		
1.8	25.6	6.8	34.8	11.8	44.1	16.8	53.3	21.8	62.6	26.8	71.9	31.8	81.1	36.8	90.4		
1.9	25.7	6.9	35.0	11.9	44.3	16.9	53.5	21.9	62.8	26.9	72.0	31.9	81.3	36.9	90.6		
2.0	25.9	7.0	35.2	12.0	44.4	17.0	53.7	22.0	63.0	27.0	72.2	32.0	81.5	37.0	90.7		
2.1	26.1	7.1	35.4	12.1	44.6	17.1	53.9	22.1	63.1	27.1	72.4	32.1	81.7	37.1	90.9		
2.2	26.3	7.2	35.6	12.2	44.8	17.2	54.1	22.2	63.3	27.2	72.6	32.2	81.9	37.2	91.1		
2.3	26.5	7.3	35.7	12.3	45.0	17.3	54.3	22.3	63.5	27.3	72.8	32.3	82.0	37.3	91.3		
2.4	26.7	7.4	35.9	12.4	45.2	17.4	54.4	22.4	63.7	27.4	73.0	32.4	82.2	37.4	91.5		
2.5	26.9	7.5	36.1	12.5	45.4	17.5	54.6	22.5	63.9	27.5	73.1	32.5	82.4	37.5	91.7		
2.6	27.0	7.6	36.3	12.6	45.6	17.6	54.8	22.6	64.1	27.6	73.3	32.6	82.6	37.6	91.9		
2.7	27.2	7.7	36.5	12.7	45.7	17.7	55.0	22.7	64.3	27.7	73.5	32.7	82.8	37.7	92.0		
2.8	27.4	7.8	36.7	12.8	45.9	17.8	55.2	22.8	64.4	27.8	73.7	32.8	83.0	37.8	92.2		
2.9	27.6	7.9	36.9	12.9	46.1	17.9	55.4	22.9	64.6	27.9	73.9	32.9	83.1	37.9	92.4		
3.0	27.8	8.0	37.0	13.0	46.3	18.0	55.6	23.0	64.8	28.0	74.1	33.0	83.3	38.0	92.6		
3.1	28.0	8.1	37.2	13.1	46.5	18.1	55.7	23.1	65.0	28.1	74.3	33.1	83.5	38.1	92.8		
3.2	28.1	8.2	37.4	13.2	46.7	18.2	55.9	23.2	65.2	28.2	74.4	33.2	83.7	38.2	93.0		
3.3	28 3	8.3	37.6	13.3	46.9	18.3	56.1	23.3	65.4	28.3	74.6	33.3	83.9	38.3	93.1		
3.4	28.5	8.4	37.8	13.4	47.0	18.4	56.3	23.4	65.6	28.4	74.8	33.4	84.1	38.4	93.3		
3.5	28.7	8.5	38.0	13.5	47.2	18.5	56.5	23.5	65.7	28.5	75.0	33.5	84.3	38.5	93.5		
3.6	28.9	8.6	38.1	13.6	47.4	18.6	56.7	23.6	65.9	28.6	75.2	33.6	84.4	38.6	93.7		
3.7	29.1	8.7	38.3	13.7	47.6	18.7	56.9	23.7	66.1	28.7	75.4	33.7	84.6	38.7	93.9		
3.8	29.3	8.8	38.5	13.8	47.8	18.8	57.0	23.8	66.3	28.8	75.6	33.8	84.8	38.8	94.1		
3.9	29.4	8.9	38.7	13.9	48.0	18.9	57.2	23.9	66.5	28.9	75.7	33.9	85.0	38.9	94.3		
4.0	29.6	9.0	38.9	14.0	48.1	19.0	57.4	24.0	66.7	29.0	75.9	34.0	85.2	39.0	94.4		
4.1	29.8	9.1	39.1	14.1	48.3	19.1	57.6	24.1	66.9	29.1	76.1	34.1	85.4	39.1	94.6		
4.2	30.0	9.2	39.3	14.2	48.5	19.2	57.8	24.2	67.0	29.2	76.3	34.2	85.6	39.2	94.8		
4.3	30.2	9.3	39.4	14.3	48.7	19.3	58.0	24.3	67.2	29.3	76.5	34.3	85.7	39.3	95.0		
4.4	30.4	9.4	39.6	14.4	48.9	19.4	58.1	24.4	67.4	29.4	76.7	34.4	85.9	39.4	95.2		
4.5	30.6	9.5	39.8	14.5	49.1	19.5	58.3	24.5	67.6	29.5	76.9	34.5	86.1	39.5	95.4		
4.6	30.7	9.6	40.0	14.6	49.3	19.6	58.5	24.6	67.8	29.6	77.0	34.6	86.3	39.6	95.6		
4.7	30.9	9.7	40.2	14.7	49.4	19.7	58.7	24.7	68.0	29.7	77.2	34.7	86.5	39.7	95.7		
4.8	31.1	9.8	40.4	14.8	49.6	19.8	58.9	24.8	68.1	29.8	77.4	34.8	86.7	39.8	95.9		
4.9	31.3	9.9	40.6	14.9	49.8	19.9	59.1	24.9	68.3	29.9	77.6	34.9	86.9	39.9	96.1		

TABLE NO. XVII.

Level Cross Sections.

CUBIC YARDS IN CORRESPONDING PRISMS, 100 FEET LONG.

Road-bed 28 feet wide. Side slopes 1 to 1.

Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.
0.0	0	5.0	611	10.0	1407	15.0	2389	20.0	3556	25.0	4907	30.0	6444	35.0	8167
0.1	10	5.1	625	10.1	1425	15.1	2410	20.1	3581	25.1	4936	30.1	6477	35.1	8203
0.2	21	5.2	639	10.2	1443	15.2	2432	20.2	3606	25.2	4965	30.2	6510	35.2	8239
0.3	31	5.3	654	10.3	1461	15.3	2454	20.3	3631	25.3	4994	30.3	6543	35.3	8276
0.4	42	5.4	668	10.4	1479	15.4	2475	20.4	3657	25.4	5024	30.4	6575	35.4	8312
0.5	53	5.5	682	10.5	1497	15.5	2497	20.5	3682	25.5	5053	30.5	6608	35.5	8349
0.6	64	5.6	697	10.6	1515	15.6	2519	20.6	3708	25.6	5082	30.6	6641	35.6	8386
0.7	74	5.7	711	10.7	1534	15.7	2541	20.7	3734	25.7	5111	30.7	6674	35.7	8423
0.8	85	5.8	726	10.8	1552	15.8	2563	20.8	3759	25.8	5141	30.8	6708	35.8	8459
0.9	96	5.9	741	10.9	1570	15.9	2585	20.9	3785	25.9	5170	30.9	6741	35.9	8496
1.0	107	6.0	756	11.0	1589	16.0	2607	21.0	3811	26.0	5200	31.0	6774	36.0	8533
1.1	119	6.1	770	11.1	1607	16.1	2630	21.1	3837	26.1	5230	31.1	6807	36.1	8570
1.2	130	6.2	785	11.2	1626	16.2	2652	21.2	3863	26.2	5259	31.2	6841	36.2	8608
1.3	141	6.3	800	11.3	1645	16.3	2674	21.3	3889	26.3	5289	31.3	6874	36.3	8645
1.4	152	6.4	815	11.4	1664	16.4	2697	21.4	3915	26.4	5319	31.4	6908	36.4	8682
1.5	164	6.5	831	11.5	1682	16.5	2719	21.5	3942	26.5	5349	31.5	6942	36.5	8719
1.6	175	6.6	846	11.6	1701	16.6	2742	21.6	3968	26.6	5379	31.6	6975	36.6	8757
1.7	187	6.7	861	11.7	1720	16.7	2765	21.7	3994	26.7	5409	31.7	7009	36.7	8794
1.8	199	6.8	876	11.8	1739	16.8	2788	21.8	4021	26.8	5439	31.8	7043	36.8	8832
1.9	210	6.9	892	11.9	1759	16.9	2810	21.9	4047	26.9	5470	31.9	7077	36.9	8870
2.0	222	7.0	907	12.0	1778	17.0	2833	22.0	4074	27.0	5500	32.0	7111	37.0	8907
2.1	234	7.1	923	12.1	1797	17.1	2856	22.1	4101	27.1	5530	32.1	7145	37.1	8945
2.2	246	7.2	939	12.2	1816	17.2	2879	22.2	4128	27.2	5561	32.2	7179	37.2	8983
2.3	258	7.3	954	12.3	1836	17.3	2903	22.3	4154	27.3	5591	32.3	7214	37.3	9021
2.4	270	7.4	970	12.4	1855	17.4	2926	22.4	4181	27.4	5622	32.4	7248	37.4	9059
2.5	282	7.5	986	12.5	1875	17.5	2949	22.5	4208	27.5	5653	32.5	7282	37.5	9097
2.6	295	7.6	1002	12.6	1895	17.6	2972	22.6	4235	27.6	5684	32.6	7317	37.6	9135
2.7	307	7.7	1018	12.7	1914	17.7	2996	22.7	4263	27.7	5714	32.7	7351	37.7	9174
2.8	319	7.8	1034	12.8	1934	17.8	3019	22.8	4290	27.8	5745	32.8	7386	37.8	9212
2.9	332	7.9	1050	12.9	1954	17.9	3043	22.9	4317	27.9	5776	32.9	7421	37.9	9250
3.0	344	8.0	1067	13.0	1974	18.0	3067	23.0	4344	28.0	5807	33.0	7456	38.0	9289
3.1	357	8.1	1083	13.1	1994	18.1	3090	23.1	4372	28.1	5839	33.1	7490	38.1	9327
3.2	370	8.2	1099	13.2	2014	18.2	3114	23.2	4399	28.2	5870	33.2	7525	38.2	9366
3.3	383	8.3	1116	13.3	2034	18.3	3138	23.3	4427	28.3	5901	33.3	7560	38.3	9405
3.4	395	8.4	1132	13.4	2055	18.4	3162	23.4	4455	28.4	5932	33.4	7595	38.4	9444
3.5	408	8.5	1149	13.5	2075	18.5	3186	23.5	4482	28.5	5964	33.5	7631	38.5	9482
3.6	421	8.6	1166	13.6	2095	18.6	3210	23.6	4510	28.6	5995	33.6	7666	38.6	9521
3.7	434	8.7	1183	13.7	2116	18.7	3234	23.7	4538	28.7	6027	33.7	7701	38.7	9560
3.8	448	8.8	1199	13.8	2136	18.8	3259	23.8	4566	28.8	6059	33.8	7736	38.8	9599
3.9	461	8.9	1216	13.9	2157	18.9	3283	23.9	4594	28.9	6090	33.9	7772	38.9	9639
4.0	474	9.0	1233	14.0	2178	19.0	3307	24.0	4622	29.0	6122	34.0	7807	39.0	9678
4.1	487	9.1	1250	14.1	2199	19.1	3332	24.1	4650	29.1	6154	34.1	7843	39.1	9717
4.2	501	9.2	1268	14.2	2219	19.2	3356	24.2	4679	29.2	6186	34.2	7879	39.2	9756
4.3	514	9.3	1285	14.3	2240	19.3	3381	24.3	4707	29.3	6218	34.3	7914	39.3	9796
4.4	528	9.4	1302	14.4	2261	19.4	3406	24.4	4735	29.4	6250	34.4	7950	39.4	9835
4.5	542	9.5	1319	14.5	2282	19.5	3431	24.5	4764	29.5	6282	34.5	7986	39.5	9875
4.6	555	9.6	1337	14.6	2304	19.6	3455	24.6	4792	29.6	6315	34.6	8023	39.6	9915
4.7	569	9.7	1354	14.7	2325	19.7	3480	24.7	4821	29.7	6347	34.7	8058	39.7	9954
4.8	583	9.8	1372	14.8	2346	19.8	3505	24.8	4850	29.8	6379	34.8	8094	39.8	9994
4.9	597	9.9	1390	14.9	2367	19.9	3530	24.9	4879	29.9	6412	34.9	8130	39.9	10034

TABLE NO. XVIII.

Side Triangles.

Cubic yards in corresponding prisms, 100 feet long.

Road-bed 28 feet wide. Side slopes 1 to 1.

Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.
0.0	25.9	5.0	35.2	10.0	44.4	15.0	53.7	20.0	63.0	25.0	72.2	30.0	81.5	35.0	90.7
0.1	26.1	5.1	35.4	10.1	44.6	15.1	53.9	20.1	63.1	25.1	72.4	30.1	81.7	35.1	90.9
0.2	26.3	5.2	35.6	10.2	44.8	15.2	54.1	20.2	63.3	25.2	72.6	30.2	81.9	35.2	91.1
0.3	26.5	5.3	35.7	10.3	45.0	15.3	54.3	20.3	63.5	25.3	72.8	30.3	82.0	35.3	91.3
0.4	26.7	5.4	35.9	10.4	45.2	15.4	54.4	20.4	63.7	25.4	73.0	30.4	82.2	35.4	91.5
0.5	26.9	5.5	36.1	10.5	45.4	15.5	54.6	20.5	63.9	25.5	73.1	30.5	82.4	35.5	91.7
0.6	27.0	5.6	36.3	10.6	45.6	15.6	54.8	20.6	64.1	25.6	73.3	30.6	82.6	35.6	91.9
0.7	27.2	5.7	36.5	10.7	45.7	15.7	55.0	20.7	64.3	25.7	73.5	30.7	82.8	35.7	92.0
0.8	27.4	5.8	36.7	10.8	45.9	15.8	55.2	20.8	64.4	25.8	73.7	30.8	83.0	35.8	92.2
0.9	27.6	5.9	36.9	10.9	46.1	15.9	55.4	20.9	64.6	25.9	73.9	30.9	83.1	35.9	92.4
1.0	27.8	6.0	37.0	11.0	46.3	16.0	55.6	21.0	64.8	26.0	74.1	31.0	83.3	36.0	92.6
1.1	28.0	6.1	37.2	11.1	46.5	16.1	55.7	21.1	65.0	26.1	74.3	31.1	83.5	36.1	92.8
1.2	28.1	6.2	37.4	11.2	46.7	16.2	55.9	21.2	65.2	26.2	74.4	31.2	83.7	36.2	93.0
1.3	28.3	6.3	37.6	11.3	46.9	16.3	56.1	21.3	65.4	26.3	74.6	31.3	83.9	36.3	93.1
1.4	28.5	6.4	37.8	11.4	47.0	16.4	56.3	21.4	65.6	26.4	74.8	31.4	84.1	36.4	93.3
1.5	28.7	6.5	38.0	11.5	47.2	16.5	56.5	21.5	65.7	26.5	75.0	31.5	84.3	36.5	93.5
1.6	28.9	6.6	38.1	11.6	47.4	16.6	56.7	21.6	65.9	26.6	75.2	31.6	84.4	36.6	93.7
1.7	29.1	6.7	38.3	11.7	47.6	16.7	56.9	21.7	66.1	26.7	75.4	31.7	84.6	36.7	93.9
1.8	29.3	6.8	38.5	11.8	47.8	16.8	57.0	21.8	66.3	26.8	75.6	31.8	84.8	36.8	94.1
1.9	29.4	6.9	38.7	11.9	48.0	16.9	57.2	21.9	66.5	26.9	75.7	31.9	85.0	36.9	94.3
2.0	29.6	7.0	38.9	12.0	48.1	17.0	57.4	22.0	66.7	27.0	75.9	32.0	85.2	37.0	94.4
2.1	29.8	7.1	39.1	12.1	48.3	17.1	57.6	22.1	66.9	27.1	76.1	32.1	85.4	37.1	94.6
2.2	30.0	7.2	39.3	12.2	48.5	17.2	57.8	22.2	67.0	27.2	76.3	32.2	85.6	37.2	94.8
2.3	30.2	7.3	39.4	12.3	48.7	17.3	58.0	22.3	67.2	27.3	76.5	32.3	85.7	37.3	95.0
2.4	30.4	7.4	39.6	12.4	48.9	17.4	58.1	22.4	67.4	27.4	76.7	32.4	85.9	37.4	95.2
2.5	30.6	7.5	39.8	12.5	49.1	17.5	58.3	22.5	67.6	27.5	76.9	32.5	86.1	37.5	95.4
2.6	30.7	7.6	40.0	12.6	49.3	17.6	58.5	22.6	67.8	27.6	77.0	32.6	86.3	37.6	95.6
2.7	30.9	7.7	40.2	12.7	49.4	17.7	58.7	22.7	68.0	27.7	77.2	32.7	86.5	37.7	95.7
2.8	31.1	7.8	40.4	12.8	49.6	17.8	58.9	22.8	68.1	27.8	77.4	32.8	86.7	37.8	95.9
2.9	31.3	7.9	40.6	12.9	49.8	17.9	59.1	22.9	68.3	27.9	77.6	32.9	86.9	37.9	96.1
3.0	31.5	8.0	40.7	13.0	50.0	18.0	59.3	23.0	68.5	28.0	77.8	33.0	87.0	38.0	96.3
3.1	31.7	8.1	40.9	13.1	50.2	18.1	59.4	23.1	68.7	28.1	78.0	33.1	87.2	38.1	96.5
3.2	31.9	8.2	41.1	13.2	50.4	18.2	59.6	23.2	68.9	28.2	78.1	33.2	87.4	38.2	96.7
3.3	32.0	8.3	41.3	13.3	50.6	18.3	59.8	23.3	69.1	28.3	78.3	33.3	87.6	38.3	96.9
3.4	32.2	8.4	41.5	13.4	50.7	18.4	60.0	23.4	69.3	28.4	78.5	33.4	87.8	38.4	97.0
3.5	32.4	8.5	41.7	13.5	50.9	18.5	60.2	23.5	69.4	28.5	78.7	33.5	88.0	38.5	97.2
3.6	32.6	8.6	41.9	13.6	51.1	18.6	60.4	23.6	69.6	28.6	78.9	33.6	88.1	38.6	97.4
3.7	32.8	8.7	42.0	13.7	51.3	18.7	60.6	23.7	69.8	28.7	79.1	33.7	88.3	38.7	97.6
3.8	33.0	8.8	42.2	13.8	51.5	18.8	60.7	23.8	70.0	28.8	79.3	33.8	88.5	38.8	97.8
3.9	33.1	8.9	42.4	13.9	51.7	18.9	60.9	23.9	70.2	28.9	79.4	33.9	88.7	38.9	98.0
4.0	33.3	9.0	42.6	14.0	51.9	19.0	61.1	24.0	70.4	29.0	79.6	34.0	88.9	39.0	98.1
4.1	33.5	9.1	42.8	14.1	52.0	19.1	61.3	24.1	70.6	29.1	79.8	34.1	89.1	39.1	98.3
4.2	33.7	9.2	43.0	14.2	52.2	19.2	61.5	24.2	70.7	29.2	80.0	34.2	89.3	39.2	98.5
4.3	33.9	9.3	43.1	14.3	52.4	19.3	61.7	24.3	70.9	29.3	80.2	34.3	89.4	39.3	98.7
4.4	34.1	9.4	43.3	14.4	52.6	19.4	61.9	24.4	71.1	29.4	80.4	34.4	89.6	39.4	98.9
4.5	34.3	9.5	43.5	14.5	52.8	19.5	62.0	24.5	71.3	29.5	80.6	34.5	89.8	39.5	99.1
4.6	34.4	9.6	43.7	14.6	53.0	19.6	62.2	24.6	71.5	29.6	80.7	34.6	90.0	39.6	99.3
4.7	34.6	9.7	43.9	14.7	53.1	19.7	62.4	24.7	71.7	29.7	80.9	34.7	90.2	39.7	99.4
4.8	34.8	9.8	44.1	14.8	53.3	19.8	62.6	24.8	71.9	29.8	81.1	34.8	90.4	39.8	99.6
4.9	35.0	9.9	44.3	14.9	53.5	19.9	62.8	24.9	72.0	29.9	81.3	34.9	90.6	39.9	99.8

TABLE NO. XIX.

Level Cross Sections.

cubic yards in corresponding prisms 100 feet long.

Road-bed 28 feet wide. Side slopes ½ to 1.

Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.
0.0	0	5.0	565	10.0	1222	15.0	1972	20.0	2815	25.0	3750	30.0	4778	35.0	5898
0.1	10	5.1	577	10.1	1236	15.1	1988	20.1	2833	25.1	3770	30.1	4799	35.1	5922
0.2	21	5.2	589	10.2	1250	15.2	2004	20.2	2850	25.2	3789	30.2	4821	35.2	5945
0.3	31	5.3	602	10.3	1265	15.3	2020	20.3	2868	25.3	3809	30.3	4842	35.3	5968
0.4	42	5.4	614	10.4	1279	15.4	2036	20.4	2886	25.4	3829	30.4	4864	35.4	5992
0.5	52	5.5	626	10.5	1293	15.5	2052	20.5	2904	25.5	3849	30.5	4886	35.5	6015
0.6	63	5.6	639	10.6	1307	15.6	2068	20.6	2922	25.6	3868	30.6	4907	35.6	6039
0.7	74	5.7	651	10.7	1322	15.7	2085	20.7	2940	25.7	3888	30.7	4929	35.7	6062
0.8	84	5.8	664	10.8	1336	15.8	2101	20.8	2958	25.8	3908	30.8	4951	35.8	6086
0.9	95	5.9	676	10.9	1350	15.9	2117	20.9	2976	25.9	3928	30.9	4973	35.9	6110
1.0	106	6.0	689	11.0	1365	16.0	2133	21.0	2994	26.0	3948	31.0	4994	36.0	6133
1.1	116	6.1	702	11.1	1379	16.1	2150	21.1	3013	26.1	3968	31.1	5016	36.1	6157
1.2	127	6.2	714	11.2	1394	16.2	2166	21.2	3031	26.2	3988	31.2	5038	36.2	6181
1.3	138	6.3	727	11.3	1408	16.3	2182	21.3	3049	26.3	4008	31.3	5060	36.3	6205
1.4	149	6.4	740	11.4	1423	16.4	2199	21.4	3067	26.4	4028	31.4	5082	36.4	6228
1.5	160	6.5	752	11.5	1438	16.5	2215	21.5	3086	26.5	4049	31.5	5104	36.5	6252
1.6	171	6.6	765	11 6	1452	16.6	2232	21.6	3104	26.6	4069	31.6	5126	36.6	6276
1.7	182	6.7	778	11.7	1467	16.7	2248	21.7	3122	26.7	4089	31.7	5148	36.7	6300
1.8	193	6.8	791	11.8	1482	16.8	2265	21.8	3141	26.8	4109	31.8	5170	36.8	6324
1.9	204	6.9	804	11.9	1496	16.9	2282	21.9	3159	26.9	4130	31.9	5193	36.9	6348
2.0	215	7.0	817	12.0	1511	17.0	2298	22.0	3178	27.0	4150	32.0	5215	37.0	6372
2.1	226	7.1	830	12.1	1526	17.1	2315	22.1	3196	27.1	4170	32.1	5237	37.1	6396
2.2	237	7.2	843	12.2	1541	17.2	2332	22.2	3215	27.2	4191	32.2	5259	37.2	6420
2.3	248	7.3	856	12.3	1556	17.3	2348	22.3	3234	27.3	4211	32.3	5282	37.3	6445
2.4	260	7.4	869	12.4	1571	17.4	2365	22.4	3252	27.4	4232	32.4	5304	37.4	6469
2.5	271	7.5	882	12.5	1586	17.5	2382	22.5	3271	27.5	4252	32.5	5326	37.5	6493
2.6	282	7.6	895	12.6	1601	17.6	2399	22.6	3290	27.6	4273	32.6	5349	37.6	6517
2.7	294	7.7	908	12.7	1616	17.7	2416	22.7	3308	27.7	4294	32.7	5371	37.7	6542
2.8	305	7.8	922	12.8	1631	17.8	2433	22.8	3327	27.8	4314	32.8	5394	37.8	6566
2.9	316	7.9	935	12.9	1646	17.9	2450	22.9	3346	27.9	4335	32.9	5416	37.9	6590
3.0	328	8.0	948	13.0	1661	18.0	2467	23.0	3365	28.0	4356	33.0	5439	38.0	6615
3.1	339	8.1	962	13.1	1676	18.1	2484	23.1	3384	28.1	4376	33.1	5462	38.1	6639
3.2	351	8.2	975	13.2	1692	18.2	2501	23.2	3403	28.2	4397	33.2	5484	38.2	6664
3.3	362	8.3	988	13.3	1707	18.3	2518	23.3	3422	28.3	4418	33.3	5507	38.3	6688
3.4	374	8.4	1002	13.4	1722	18.4	2535	23.4	3441	28.4	4439	33.4	5530	38.4	6713
3.5	386	8.5	1015	13.5	1738	18.5	2552	23.5	3460	28.5	4460	33.5	5552	38.5	6738
3.6	397	8.6	1029	13.6	1753	18.6	2570	23.6	3479	28.6	4481	33.6	5575	38.6	6762
3.7	409	8.7	1042	13.7	1768	18.7	2587	23.7	3498	28.7	4502	33.7	5598	38.7	6787
3.8	421	8.8	1056	13.8	1784	18.8	2604	23.8	3517	28.8	4523	33.8	5621	38.8	6812
3.9	433	8.9	1070	13.9	1799	18.9	2622	23.9	3536	28.9	4544	33.9	5644	38.9	6836
4.0	444	9.0	1083	14.0	1815	19.0	2639	24.0	3556	29.0	4565	34.0	5667	39.0	6861
4.1	456	9.1	1097	14.1	1830	19.1	2656	24.1	3575	29.1	4586	34.1	5690	39.1	6886
4.2	468	9.2	1111	14.2	1846	19.2	2674	24.2	3594	29.2	4607	34.2	5713	39.2	6911
4.3	480	9.3	1125	14.3	1862	19.3	2691	24.3	3614	29.3	4628	34.3	5736	39.3	6936
4.4	492	9.4	1138	14.4	1877	19.4	2709	24.4	3633	29.4	4650	34.4	5759	39.4	6961
4.5	504	9.5	1152	14.5	1893	19.5	2726	24.5	3652	29.5	4671	34.5	5782	39.5	6986
4.6	516	9.6	1166	14.6	1909	19.6	2744	24.6	3672	29.6	4692	34.6	5805	39.6	7011
4.7	528	9.7	1180	14.7	1925	19.7	2762	24.7	3691	29.7	4714	34.7	5828	39.7	7036
4.8	540	9.8	1194	14.8	1940	19.8	2779	24.8	3711	29.8	4735	34.8	5852	39.8	7061
4.9	553	9.9	1208	14.9	1956	19.9	2797	24.9	3730	29.9	4756	34.9	5875	39.9	7086

TABLE NO. XX.

Side Triangles.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 28 feet wide. Side slopes ½ to 1.

Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.
0.0	25.9	5.0	30.6	10.0	35.2	15.0	39.8	20.0	44.4	25.0	49.1	30.0	53.7	35.0	58.3
0.1	26.0	5.1	30.6	10.1	35.3	15.1	39.9	20.1	44.5	25.1	49.2	30.1	53.8	35.1	58.4
0.2	26.1	5.2	30.7	10.2	35.4	15.2	40.0	20.2	44.6	25.2	49.3	30.2	53.9	35.2	58.5
0.3	26.2	5.3	30.8	10.3	35.5	15.3	40.1	20.3	44.7	25.3	49.4	30.3	54.0	35.3	58.6
0.4	26.3	5.4	30.9	10.4	35.6	15.4	40.2	20.4	44.8	25.4	49.4	30.4	54.1	35.4	58.7
0.5	26.4	5.5	31.0	10.5	35.6	15.5	40.3	20.5	44.9	25.5	49.5	30.5	54.2	35.5	58.8
0.6	26.5	5.6	31.1	10.6	35.7	15.6	40.4	20.6	45.0	25.6	49.6	30.6	54.3	35.6	58.9
0.7	26.6	5.7	31.2	10.7	35.8	15.7	40.5	20.7	45.1	25.7	49.7	30.7	54.4	35.7	59.0
0.8	26.7	5.8	31.3	10.8	35.9	15.8	40.6	20.8	45.2	25.8	49.8	30.8	54.4	35.8	59.1
0.9	26.8	5.9	31.4	10.9	36.0	15.9	40.6	20.9	45.3	25.9	49.9	30.9	54.5	35.9	59.2
1.0	26.9	6.0	31.5	11.0	36.1	16.0	40.7	21.0	45.4	26.0	50.0	31.0	54.6	36.0	59.3
1.1	26.9	6.1	31.6	11.1	36.2	16.1	40.8	21.1	45.5	26.1	50.1	31.1	54.7	36.1	59.4
1.2	27.0	6.2	31.7	11.2	36.3	16.2	40.9	21.2	45.6	26.2	50.2	31.2	54.8	36.2	59.4
1.3	27.1	6.3	31.8	11.3	36.4	16.3	41.0	21.3	45.6	26.3	50.3	31.3	54.9	36.3	59.5
1.4	27.2	6.4	31.9	11.4	36.5	16.4	41.1	21.4	45.7	26.4	50.4	31.4	55.0	36.4	59.6
1.5	27.3	6.5	31.9	11.5	36.6	16.5	41.2	21.5	45.8	26.5	50.5	31.5	55.1	36.5	59.7
1.6	27.4	6.6	32.0	11.6	36.7	16.6	41.3	21.6	45.9	26.6	50.6	31.6	55.2	36.6	59.8
1.7	27.5	6.7	32.1	11.7	36.8	16.7	41.4	21.7	46.0	26.7	50.6	31.7	55.3	36.7	59.9
1.8	27.6	6.8	32.2	11.8	36.9	16.8	41.5	21.8	46.1	26.8	50.7	31.8	55.4	36.8	60.0
1.9	27.7	6.9	32.3	11.9	36.9	16.9	41.6	21.9	46.2	26.9	50.8	31.9	55.5	36.9	60.1
2.0	27.8	7.0	32.4	12.0	37.0	17.0	41.7	22.0	46.3	27.0	50.9	32.0	55.6	37.0	60.2
2.1	27.9	7.1	32.5	12.1	37.1	17.1	41.8	22.1	46.4	27.1	51.0	32.1	55.6	37.1	60.3
2.2	28.0	7.2	32.6	12.2	37.2	17.2	41.9	22.2	46.5	27.2	51.1	32.2	55.7	37.2	60.4
2.3	28.1	7.3	32.7	12.3	37.3	17.3	41.9	22.3	46.6	27.3	51.2	32.3	55.8	37.3	60.5
2.4	28.1	7.4	32.8	12.4	37.4	17.4	42.0	22.4	46.7	27.4	51.3	32.4	55.9	37.4	60.6
2.5	28.2	7.5	32.9	12.5	37.5	17.5	42.1	22.5	46.8	27.5	51.4	32.5	56.0	37.5	60.6
2.6	28.3	7.6	33.0	12.6	37.6	17.6	42.2	22.6	46.9	27.6	51.5	32.6	56.1	37.6	60.7
2.7	28.4	7.7	33.1	12.7	37.7	17.7	42.3	22.7	46.9	27.7	51.6	32.7	56.2	37.7	60.8
2.8	28.5	7.8	33.1	12.8	37.8	17.8	42.4	22.8	47.0	27.8	51.7	32.8	56.3	37.8	60.9
2.9	28.6	7.9	33.2	12.9	37.9	17.9	42.5	22.9	47.1	27.9	51.8	32.9	56.4	37.9	61.0
3.0	28.7	8.0	33.3	13.0	38.0	18.0	42.6	23.0	47.2	28.0	51.9	33.0	56.5	38.0	61.1
3.1	28.8	8.1	33.4	13.1	38.1	18.1	42.7	23.1	47.3	28.1	51.9	33.1	56.6	38.1	61.2
3.2	28.9	8.2	33.5	13.2	38.1	18.2	42.8	23.2	47.4	28.2	52.0	33.2	56.7	38.2	61.3
3.3	29.0	8.3	33.6	13.3	38.2	18.3	42.9	23.3	47.5	28.3	52.1	33.3	56.8	38.3	61.4
3.4	29.1	8.4	33.7	13.4	38.3	18.4	43.0	23.4	47.6	28.4	52.2	33.4	56.9	38.4	61.5
3.5	29.2	8.5	33.8	13.5	38.4	18.5	43.1	23.5	47.7	28.5	52.3	33.5	56.9	38.5	61.6
3.6	29.3	8.6	33.9	13.6	38.5	18.6	43.1	23.6	47.8	28.6	52.4	33.6	57.0	38.6	61.7
3.7	29.4	8.7	34.0	13.7	38.6	18.7	43.2	23.7	47.9	28.7	52.5	33.7	57.1	38.7	61.8
3.8	29.4	8.8	34.1	13.8	38.7	18.8	43.3	23.8	48.0	28.8	52.6	33.8	57.2	38.8	61.9
3.9	29.5	8.9	34.2	13.9	38.8	18.9	43.4	23.9	48.1	28.9	52.7	33.9	57.3	38.9	61.9
4.0	29.6	9.0	34.3	14.0	38.9	19.0	43.5	24.0	48.1	29.0	52.8	34.0	57.4	39.0	62.0
4.1	29.7	9.1	34.4	14.1	39.0	19.1	43.6	24.1	48.2	29.1	52.9	34.1	57.5	39.1	62.1
4.2	29.8	9.2	34.4	14.2	39.1	19.2	43.7	24.2	48.3	29.2	53.0	34.2	57.6	39.2	62.2
4.3	29.9	9.3	34.5	14.3	39.2	19.3	43.8	24.3	48.4	29.3	53.1	34.3	57.7	39.3	62.3
4.4	30.0	9.4	34.6	14.4	39.3	19.4	43.9	24.4	48.5	29.4	53.1	34.4	57.8	39.4	62.4
4.5	30.1	9.5	34.7	14.5	39.4	19.5	44.0	24.5	48.6	29.5	53.2	34.5	57.9	39.5	62.5
4.6	30.2	9.6	34.8	14.6	39.4	19.6	44.1	24.6	48.7	29.6	53.3	34.6	58.0	39.6	62.6
4.7	30.3	9.7	34.9	14.7	39.5	19.7	44.2	24.7	48.8	29.7	53.4	34.7	58.1	39.7	62.7
4.8	30.4	9.8	35.0	14.8	39.6	19.8	44.3	24.8	48.9	29.8	53.5	34.8	58.1	39.8	62.8
4.9	30.5	9.9	35.1	14.9	39.7	19.9	44.4	24.9	49.0	29.9	53.6	34.9	58.2	39.9	62.9

TABLE NO. XXI.

Level Cross Sections.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 20 feet wide. Side slopes ½ to 1.

Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.
0.0	0	5.0	394	10.0	833	15.0	1319	20.0	1852	25.0	2431	30.0	3056	35.0	3727
0.1	7	5.1	402	10.1	843	15.1	1330	20.1	1863	25.1	2443	30.1	3069	35.1	3741
0.2	15	5.2	410	10.2	852	15.2	1340	20.2	1874	25.2	2455	30.2	3082	35.2	3755
0.3	22	5.3	419	10.3	861	15.3	1350	20.3	1885	25.3	2467	30.3	3095	35.3	3769
0.4	30	5.4	427	10.4	871	15.4	1360	20.4	1896	25.4	2479	30.4	3108	35.4	3783
0.5	37	5.5	435	10.5	880	15.5	1371	20.5	1908	25.5	2491	30.5	3121	35.5	3797
0.6	45	5.6	444	10.6	889	15.6	1381	20.6	1919	25.6	2503	30.6	3134	35.6	3811
0.7	52	5.7	452	10.7	899	15.7	1391	20.7	1930	25.7	2515	30.7	3147	35.7	3825
0.8	60	5.8	461	10.8	908	15.8	1402	20.8	1941	25.8	2527	30.8	3160	35.8	3839
0.9	67	5.9	469	10.9	917	15.9	1412	20.9	1953	25.9	2540	30.9	3173	35.9	3853
1.0	75	6.0	478	11.0	927	16.0	1422	21.0	1964	26.0	2552	31.0	3186	36.0	3867
1.1	83	6.1	486	11.1	936	16.1	1433	21.1	1975	26.1	2564	31.1	3199	36.1	3881
1.2	90	6.2	495	11.2	946	16.2	1443	21.2	1987	26.2	2576	31.2	3212	36.2	3895
1.3	98	6.3	503	11.3	955	16.3	1453	21.3	1998	26.3	2589	31.3	3226	36.3	3909
1.4	106	6.4	512	11.4	965	16.4	1464	21.4	2009	26.4	2601	31.4	3239	36.4	3923
1.5	113	6.5	521	11.5	974	16.5	1474	21.5	2021	26.5	2613	31.5	3252	36.5	3937
1.6	121	6.6	529	11.6	984	16.6	1485	21.6	2032	26.6	2626	31.6	3265	36.6	3951
1.7	129	6.7	538	11.7	993	16.7	1495	21.7	2043	26.7	2638	31.7	3279	36.7	3966
1.8	136	6.8	547	11.8	1003	16.8	1506	21.8	2055	26.8	2650	31.8	3292	36.8	3980
1.9	144	6.9	555	11.9	1013	16.9	1516	21.9	2066	26.9	2663	31.9	3305	36.9	3994
2.0	152	7.0	564	12.0	1022	17.0	1527	22.0	2078	27.0	2675	32.0	3319	37.0	4008
2.1	160	7.1	573	12.1	1032	17.1	1537	22.1	2089	27.1	2687	32.1	3332	37.1	4023
2.2	167	7.2	581	12.2	1042	17.2	1548	22.2	2101	27.2	2700	32.2	3345	37.2	4037
2.3	175	7.3	590	12.3	1051	17.3	1559	22.3	2112	27.3	2712	32.3	3359	37.3	4051
2.4	183	7.4	599	12.4	1061	17.4	1569	22.4	2124	27.4	2725	32.4	3372	37.4	4066
2.5	191	7.5	608	12.5	1071	17.5	1580	22.5	2135	27.5	2737	32.5	3385	37.5	4080
2.6	199	7.6	616	12.6	1080	17.6	1591	22.6	2147	27.6	2750	32.6	3399	37.6	4094
2.7	207	7.7	625	12.7	1090	17.7	1601	22.7	2159	27.7	2762	32.7	3412	37.7	4109
2.8	215	7.8	634	12.8	1100	17.8	1612	22.8	2170	27.8	2775	32.8	3426	37.8	4123
2.9	223	7.9	643	12.9	1110	17.9	1623	22.9	2182	27.9	2787	32.9	3439	37.9	4137
3.0	231	8.0	652	13.0	1119	18.0	1633	23.0	2194	28.0	2800	33.0	3453	38.0	4152
3.1	239	8.1	661	13.1	1129	18.1	1644	23.1	2205	28.1	2813	33.1	3466	38.1	4166
3.2	247	8.2	670	13.2	1139	18.2	1655	23.2	2217	28.2	2825	33.2	3480	38.2	4181
3.3	255	8.3	679	13.3	1149	18.3	1666	23.3	2229	28.3	2838	33.3	3493	38.3	4195
3.4	263	8.4	688	13.4	1159	18.4	1676	23.4	2240	28.4	2851	33.4	3507	38.4	4210
3.5	271	8.5	697	13.5	1169	18.5	1687	23.5	2252	28.5	2863	33.5	3521	38.5	4224
3.6	279	8.6	706	13.6	1179	18.6	1698	23.6	2264	28.6	2876	33.6	3534	38.6	4239
3.7	287	8.7	715	13.7	1189	18.7	1709	23.7	2276	28.7	2889	33.7	3548	38.7	4253
3.8	295	8.8	724	13.8	1199	18.8	1720	23.8	2287	28.8	2901	33.8	3562	38.8	4268
3.9	303	8.9	733	13.9	1209	18.9	1731	23.9	2299	28.9	2914	33.9	3575	38.9	4283
4.0	311	9.0	742	14.0	1219	19.0	1742	24.0	2311	29.0	2927	34.0	3589	39.0	4297
4.1	319	9.1	751	14.1	1229	19.1	1753	24.1	2323	29.1	2940	34.1	3603	39.1	4312
4.2	327	9.2	760	14.2	1239	19.2	1764	24.2	2335	29.2	2952	34.2	3616	39.2	4327
4.3	336	9.3	769	14.3	1249	19.3	1775	24.3	2347	29.3	2965	34.3	3630	39.3	4341
4.4	344	9.4	778	14.4	1259	19.4	1786	24.4	2359	29.4	2978	34.4	3644	39.4	4356
4.5	352	9.5	787	14.5	1269	19.5	1797	24.5	2371	29.5	2991	34.5	3658	39.5	4371
4.6	360	9.6	796	14.6	1279	19.6	1808	24.6	2383	29.6	3004	34.6	3671	39.6	4385
4.7	369	9.7	806	14.7	1289	19.7	1819	24.7	2395	29.7	3017	34.7	3685	39.7	4400
4.8	377	9.8	815	14.8	1299	19.8	1830	24.8	2407	29.8	3030	34.8	3699	39.8	4415
4.9	385	9.9	824	14.9	1309	19.9	1841	24.9	2419	29.9	3043	34.9	3713	39.9	4430

TABLE NO. XXII.

Side Triangles.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 20 feet wide. Side slopes ½ to 1.

Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.
0 0	18.5	5.0	20.8	10.0	23.1	15.0	25.5	20.0	27.8	25.0	30.1	30.0	32.4	35.0	34.7
0.1	18.6	5.1	20.9	10.1	23.2	15.1	25.5	20.1	27.8	25.1	30.1	30.1	32.5	35.1	34.8
0.2	18.6	5.2	20.9	10.2	23.2	15.2	25.6	20.2	27.9	25.2	30.2	30.2	32.5	35.2	34.8
0.3	18.7	5.3	21.0	10.3	23.3	15.3	25.6	20.3	27.9	25.3	30.2	30.3	32.5	35.3	34.9
0.4	18.7	5.4	21.0	10.4	23.3	15.4	25.6	20.4	28.0	25.4	30.3	30.4	32.6	35.4	34.9
0.5	18.8	5.5	21.1	10.5	23.4	15.5	25.7	20.5	28.0	25.5	30.3	30.5	32.6	35.5	35.0
0.6	18.8	5.6	21.1	10.6	23.4	15.6	25.7	20.6	28.1	25.6	30.4	30.6	32.7	35.6	35.0
0.7	18.8	5.7	21.2	10.7	23.5	15.7	25.8	20.7	28.1	25.7	30.4	30.7	32.7	35.7	35.0
0.8	18.9	5.8	21.2	10.8	23.5	15.8	25.8	20.8	28.1	25.8	30.5	30.8	32.8	35.8	35.1
0.9	18.9	5.9	21.3	10.9	23.6	15.9	25.9	20.9	28.2	25.9	30.5	30.9	32.8	35.9	35.1
1.0	19.0	6.0	21.3	11.0	23.6	16.0	25.9	21.0	28.2	26.0	30.6	31.0	32.9	36.0	35.2
1.1	19.0	6.1	21.3	11.1	23.7	16.1	26.0	21.1	28.3	26.1	30.6	31.1	32.9	36.1	35.2
1.2	19.1	6.2	21.4	11.2	23.7	16.2	26.0	21.2	28.3	26.2	30.6	31.2	33.0	36.2	35.3
1.3	19.1	6.3	21.4	11.3	23.8	16.3	26.1	21.3	28.4	26.3	30.7	31.3	33.0	36.3	35.3
1.4	19.2	6.4	21.5	11.4	23.8	16.4	26.1	21.4	28.4	26.4	30.7	31.4	33.1	36.4	35.4
1.5	19.2	6.5	21.5	11.5	23.8	16.5	26.2	21.5	28.5	26.5	30.8	31.5	33.1	36.5	35.4
1.6	19.3	6.6	21.6	11.6	23.9	16.6	26.2	21.6	28.5	26.6	30.8	31.6	33.1	36.6	35.5
1.7	19.3	6.7	21.6	11.7	23.9	16.7	26.3	21.7	28.6	26.7	30.9	31.7	33.2	36.7	35.5
1.8	19.4	6.8	21.7	11.8	24.0	16.8	26.3	21.8	28.6	26.8	30.9	31.8	33.2	36.8	35.6
1.9	19.4	6.9	21.7	11.9	24.0	16.9	26.3	21.9	28.7	26.9	31.0	31.9	33.3	36.9	35.6
2.0	19.4	7.0	21.8	12.0	24.1	17.0	26.4	22.0	28.7	27.0	31.0	32.0	33.3	37.0	35.6
2.1	19.5	7.1	21.8	12.1	24.1	17.1	26.4	22.1	28.8	27.1	31.1	32.1	33.4	37.1	35.7
2.2	19.5	7.2	21.9	12.2	24.2	17.2	26.5	22.2	28.8	27.2	31.1	32.2	33.4	37.2	35.7
2.3	19.6	7.3	21.9	12.3	24.2	17.3	26.5	22.3	28.8	27.3	31.2	32.3	33.5	37.3	35.8
2.4	19.6	7.4	21.9	12.4	24.3	17.4	26.6	22.4	28.9	27.4	31.2	32.4	33.5	37.4	35.8
2.5	19.7	7.5	22.0	12.5	24.3	17.5	26.6	22.5	28.9	27.5	31.3	32.5	33.6	37.5	35.9
2.6	19.7	7.6	22.0	12.6	24.4	17.6	26.7	22.6	29.0	27.6	31.3	32.6	33.6	37.6	35.9
2.7	19.8	7.7	22.1	12.7	24.4	17.7	26.7	22.7	29.0	27.7	31.3	32.7	33.7	37.7	36.0
2.8	19.8	7.8	22.1	12.8	24.4	17.8	26.8	22.8	29.1	27.8	31.4	32.8	33.7	37.8	36.0
2.9	19.9	7.9	22.2	12.9	24.5	17.9	26.8	22.9	29.1	27.9	31.4	32.9	33.8	37.9	36.1
3.0	19.9	8.0	22.2	13.0	24.5	18.0	26.9	23.0	29.2	28.0	31.5	33.0	33.8	38.0	36.1
3.1	20.0	8.1	22.3	13.1	24.6	18.1	26.9	23.1	29.2	28.1	31.5	33.1	33.8	38.1	36.2
3.2	20.0	8.2	22.3	13.2	24.6	18.2	26.9	23.2	29.3	28.2	31.6	33.2	33.9	38.2	36.2
3.3	20.0	8.3	22.4	13.3	24.7	18.3	27.0	23.3	29.3	28.3	31.6	33.3	33.9	38.3	36.3
3.4	20.1	8.4	22.4	13.4	24.7	18.4	27.0	23.4	29.4	28 4	31.7	33.4	34.0	38.4	36.3
3.5	20.1	8.5	22.5	13.5	24.8	18.5	27.1	23.5	29.4	28.5	31.7	33.5	34.0	38.5	36.3
3.6	20.2	8.6	22.5	13.6	24.8	18.6	27.1	23.6	29.4	28.6	31.8	33.6	34.1	38.6	36.4
3.7	20.2	8.7	22.5	13.7	24.9	18.7	27.2	23.7	29.5	28.7	31.8	33.7	34.1	38.7	36.4
3.8	20.3	8.8	22.6	13.8	24.9	18.8	27.2	23.8	29.5	28.8	31.9	33.8	34.2	38.8	36.5
3.9	20.3	8.9	22.6	13.9	25.0	18.9	27.3	23.9	29.6	28.9	31.9	33.9	34.2	38.9	36.5
4.0	20.4	9.0	22.7	14.0	25.0	19.0	27.3	24.0	29.6	29.0	31.9	34.0	34.3	39.0	36.6
4.1	20.4	9.1	22.7	14.1	25.0	19.1	27.4	24.1	29.7	29.1	32.0	34.1	34.3	39.1	36.6
4.2	20.5	9.2	22.8	14.2	25.1	19.2	27.4	24.2	29.7	29.2	32.0	34.2	34.4	39.2	36.7
4.3	20.5	9.3	22.8	14.3	25.1	19.3	27.5	24.3	29.8	29.3	32.1	34.3	34.4	39.3	36.7
4.4	20.6	9.4	22.9	14.4	25.2	19.4	27.5	24.4	29.8	29.4	32.1	34.4	34.4	39.4	36.8
4.5	20.6	9.5	22.9	14.5	25.2	19.5	27.5	24.5	29.9	29.5	32.2	34.5	34.5	39.5	36.8
4.6	20.6	9.6	23.0	14.6	25.3	19.6	27.6	24.6	29.9	29.6	32.2	34.6	34.5	39.6	36.9
4.7	20.7	9 7	23.0	14.7	25.3	19.7	27.6	24.7	30.0	29.7	32.3	34.7	34.6	39.7	36.9
4.8	20.7	9.8	23.1	14.8	25.4	19.8	27.7	24.8	30.0	29.8	32.3	34.8	34.6	39.8	36.9
4.9	20.8	9.9	23.1	14.9	25.4	19.9	27.7	24.9	30.0	29.9	32.4	34.9	34.7	39.9	37.0

TABLE NO. XXIII.

Level Cross Sections.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 28 feet wide. Side slopes ½ to 1.

Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.
0.0	0	5.0	542	10.0	1130	15.0	1764	20.0	2444	25.0	3171	30.0	3944	35.0	4764		
0.1	10	5.1	553	10.1	1142	15.1	1777	20.1	2459	25.1	3186	30.1	3960	35.1	4781		
0.2	21	5.2	564	10.2	1154	15.2	1790	20.2	2473	25.2	3201	30.2	3976	35.2	4798		
0.3	31	5.3	576	10.3	1166	15.3	1803	20.3	2487	25.3	3216	30.3	3992	35.3	4815		
0.4	42	5.4	587	10.4	1179	15.4	1817	20.4	2501	25.4	3231	30.4	4008	35.4	4831		
0.5	52	5.5	598	10.5	1191	15.5	1830	20.5	2515	25.5	3247	30.5	4024	35.5	4848		
0.6	63	5.6	610	10.6	1203	15.6	1843	20.6	2529	25.6	3262	30.6	4040	35.6	4865		
0.7	73	5.7	621	10.7	1216	15.7	1856	20.7	2543	25.7	3277	30.7	4056	35.7	4882		
0 8	84	5.8	633	10.8	1228	15.8	1870	20.8	2558	25.8	3292	30.8	4072	35.8	4899		
0.9	94	5.9	644	10.9	1240	15.9	1883	20.9	2572	25.9	3307	30.9	4089	35.9	4916		
1.0	105	6.0	656	11.0	1253	16.0	1896	21.0	2586	26.0	3322	31.0	4105	36.0	4933		
1.1	115	6.1	667	11.1	1265	16.1	1910	21.1	2600	26.1	3337	31.1	4121	36.1	4950		
1.2	126	6.2	679	11.2	1278	16.2	1923	21.2	2615	26.2	3353	31.2	4137	36.2	4967		
1.3	136	6.3	690	11.3	1290	16.3	1936	21.3	2629	26.3	3368	31.3	4153	36.3	4985		
1.4	147	6.4	702	11.4	1303	16.4	1950	21.4	2643	26.4	3383	31.4	4169	36.4	5002		
1.5	158	6.5	713	11.5	1315	16.5	1963	21.5	2658	26.5	3398	31.5	4185	36.5	5019		
1.6	168	6.6	725	11.6	1328	16.6	1977	21.6	2672	26.6	3414	31.6	4202	36.6	5036		
1.7	179	6.7	736	11.7	1340	16.7	1990	21.7	2686	26.7	3429	31.7	4218	36.7	5053		
1.8	190	6.8	748	11.8	1353	16.8	2004	21.8	2701	26.8	3444	31.8	4234	36.8	5070		
1.9	200	6.9	760	11.9	1365	16.9	2017	21.9	2715	26.9	3460	31.9	4250	36.9	5087		
2.0	211	7.0	771	12.0	1378	17.0	2031	22.0	2730	27.0	3475	32.0	4267	37.0	5105		
2.1	222	7.1	783	12.1	1390	17.1	2044	22.1	2744	27.1	3490	32.1	4283	37.1	5122		
2.2	233	7.2	795	12.2	1403	17.2	2058	22.2	2759	27.2	3506	32.2	4299	37.2	5139		
2.3	243	7.3	806	12.3	1416	17.3	2071	22.3	2773	27.3	3521	32.3	4316	37.3	5156		
2.4	254	7.4	818	12.4	1428	17.4	2085	22.4	2788	27.4	3537	32.4	4332	37.4	5174		
2.5	265	7.5	830	12.5	1441	17.5	2098	22.5	2802	27.5	3552	32.5	4348	37.5	5191		
2.6	276	7.6	842	12.6	1454	17.6	2112	22.6	2817	27.6	3568	32.6	4365	37.6	5208		
2.7	287	7.7	853	12.7	1466	17.7	2126	22.7	2831	27.7	3583	32.7	4381	37.7	5226		
2.8	298	7.8	865	12.8	1479	17.8	2139	22.8	2846	27.8	3599	32.8	4398	37.8	5243		
2.9	309	7.9	877	12.9	1492	17.9	2153	22.9	2860	27.9	3614	32.9	4414	37.9	5260		
3.0	319	8.0	889	13.0	1505	18.0	2167	23.0	2875	28.0	3630	33.0	4431	38.0	5278		
3.1	330	8.1	901	13.1	1517	18.1	2180	23.1	2890	28.1	3645	33.1	4447	38.1	5295		
3.2	341	8.2	913	13.2	1530	18.2	2194	23.2	2904	28.2	3661	33.2	4464	38.2	5313		
3.3	352	8.3	925	13.3	1543	18.3	2208	23.3	2919	28.3	3676	33.3	4480	38.3	5330		
3.4	363	8.4	936	13.4	1556	18.4	2222	23.4	2934	28.4	3692	33.4	4497	38.4	5348		
3.5	374	8.5	948	13.5	1569	18.5	2235	23.5	2948	28.5	3708	33.5	4513	38.5	5365		
3.6	385	8.6	960	13.6	1582	18.6	2249	23.6	2963	28.6	3723	33.6	4530	38.6	5383		
3.7	396	8.7	972	13.7	1595	18.7	2263	23.7	2978	28.7	3739	33.7	4546	38.7	5400		
3.8	407	8.8	984	13.8	1607	18.8	2277	23.8	2993	28.8	3755	33.8	4563	38.8	5418		
3.9	419	8.9	996	13.9	1620	18.9	2291	23.9	3007	28.9	3770	33.9	4580	38.9	5435		
4.0	430	9.0	1008	14.0	1633	19.0	2305	24.0	3022	29.0	3786	34.0	4596	39.0	5453		
4.1	441	9.1	1020	14.1	1646	19.1	2319	24.1	3037	29.1	3802	34.1	4613	39.1	5470		
4.2	452	9.2	1032	14.2	1659	19.2	2332	24.2	3052	29.2	3818	34.2	4630	39.2	5488		
4.3	463	9.3	1045	14.3	1672	19.3	2346	24.3	3067	29.3	3833	34.3	4646	39.3	5506		
4.4	474	9.4	1057	14.4	1685	19.4	2360	24.4	3082	29.4	3849	34.4	4663	39.4	5523		
4.5	485	9.5	1069	14.5	1698	19.5	2374	24.5	3097	29.5	3865	34.5	4680	39.5	5541		
4.6	497	9.6	1081	14.6	1711	19.6	2388	24.6	3111	29.6	3881	34.6	4697	39.6	5559		
4.7	508	9.7	1093	14.7	1725	19.7	2402	24.7	3126	29.7	3897	34.7	4713	39.7	5576		
4.8	519	9.8	1105	14.8	1738	19.8	2416	24.8	3141	29.8	3913	34.8	4730	39.8	5594		
4.9	530	9.9	1117	14.9	1751	19.9	2430	24.9	3156	29.9	3929	34.9	4747	39.9	5612		

TABLE NO. XXIV.

Side Triangles.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 28 feet wide. Side slopes ½ to 1.

Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.
0.0	25.9	5.0	28.2	10.0	30.6	15.0	32.9	20.0	35.2	25.0	37.5	30.0	39.8	35.0	42.1
0.1	26.0	5.1	28.3	10.1	30.6	15.1	32.9	20.1	35.2	25.1	37.5	30.1	39.9	35.1	42.2
0.2	26.0	5.2	28.3	10.2	30.6	15.2	33.0	20.2	35.3	25.2	37.6	30.2	39.9	35.2	42.2
0.3	26.1	5.3	28.4	10.3	30.7	15.3	33.0	20.3	35.3	25.3	37.6	30.3	40.0	35.3	42.3
0.4	26.1	5.4	28.4	10.4	30.7	15.4	33.1	20.4	35.4	25.4	37.7	30.4	40.0	35.4	42.3
0.5	26.2	5.5	28.5	10.5	30.8	15.5	33.1	20.5	35.4	25.5	37.7	30.5	40.0	35.5	42.4
0.6	26.2	5.6	28.5	10.6	30.8	15.6	33.1	20.6	35.5	25.6	37.8	30.6	40.1	35.6	42.4
0.7	26.3	5.7	28.6	10.7	30.9	15.7	33.2	20.7	35.5	25.7	37.8	30.7	40.1	35.7	42.5
0.8	26.3	5.8	28.6	10.8	30.9	15.8	33.2	20.8	35.6	25.8	37.9	30.8	40.2	35.8	42.5
0.9	26.3	5.9	28.7	10.9	31.0	15.9	33.3	20.9	35.6	25.9	37.9	30.9	40.2	35.9	42.5
1.0	26.4	6.0	28.7	11.0	31.0	16.0	33.3	21.0	35.6	26.0	38.0	31.0	40.3	36.0	42.6
1.1	26.4	6.1	28.8	11.1	31.1	16.1	33.4	21.1	35.7	26.1	38.0	31.1	40.3	36.1	42.6
1.2	26.5	6.2	28.8	11.2	31.1	16.2	33.4	21.2	35.7	26.2	38.1	31.2	40.4	36.2	42.7
1.3	26.5	6.3	28.8	11.3	31.2	16.3	33.5	21.3	35.8	26.3	38.1	31.3	40.4	36.3	42.7
1.4	26.6	6.4	28.9	11.4	31.2	16.4	33.5	21.4	35.8	26.4	38.1	31.4	40.5	36.4	42.8
1.5	26.6	6.5	28.9	11.5	31.3	16.5	33.6	21.5	35.9	26.5	38.2	31.5	40.5	36.5	42.8
1.6	26.7	6.6	29.0	11.6	31.3	16.6	33.6	21.6	35.9	26.6	38.2	31.6	40.6	36.6	42.9
1.7	26.7	6.7	29.0	11.7	31.3	16.7	33.7	21.7	36.0	26.7	38.3	31.7	40.6	36.7	42.9
1.8	26.8	6.8	29.1	11.8	31.4	16.8	33.7	21.8	36.0	26.8	38.3	31.8	40.6	36.8	43.0
1.9	26.8	6.9	29.1	11.9	31.4	16.9	33.8	21.9	36.1	26.9	38.4	31.9	40.7	36.9	43.0
2.0	26.9	7.0	29.2	12.0	31.5	17.0	33.8	22.0	36.1	27.0	38.4	32.0	40.7	37.0	43.1
2.1	26.9	7.1	29.2	12.1	31.5	17.1	33.8	22.1	36.2	27.1	38.5	32.1	40.8	37.1	43.1
2.2	26.9	7.2	29.3	12.2	31.6	17.2	33.9	22.2	36.2	27.2	38.5	32.2	40.8	37.2	43.1
2.3	27.0	7.3	29.3	12.3	31.6	17.3	33.9	22.3	36.3	27.3	38.6	32.3	40.9	37.3	43.2
2.4	27.0	7.4	29.4	12.4	31.7	17.4	34.0	22.4	36.3	27.4	38.6	32.4	40.9	37.4	43.2
2.5	27.1	7.5	29.4	12.5	31.7	17.5	34.0	22.5	36.3	27.5	38.7	32.5	41.0	37.5	43.3
2.6	27.1	7.6	29.4	12.6	31.8	17.6	34.1	22.6	36.4	27.6	38.7	32.6	41.0	37.6	43.3
2.7	27.2	7.7	29.5	12.7	31.8	17.7	34.1	22.7	36.4	27.7	38.8	32.7	41.1	37.7	43.4
2.8	27.2	7.8	29.5	12.8	31.9	17.8	34.2	22.8	36.5	27.8	38.8	32.8	41.1	37.8	43.4
2.9	27.3	7.9	29.6	12.9	31.9	17.9	34.2	22.9	36.5	27.9	38.8	32.9	41.2	37.9	43.5
3.0	27.3	8.0	29.6	13.0	31.9	18.0	34.3	23.0	36.6	28.0	38.9	33.0	41.2	38.0	43.5
3.1	27.4	8.1	29.7	13.1	32.0	18.1	34.3	23.1	36.6	28.1	38.9	33.1	41.3	38.1	43.6
3.2	27.4	8.2	29.7	13.2	32.0	18.2	34.4	23.2	36.7	28.2	39.0	33.2	41.3	38.2	43.6
3.3	27.5	8.3	29.8	13.3	32.1	18.3	34.4	23.3	36.7	28.3	39.0	33.3	41.3	38.3	43.7
3.4	27.5	8.4	29.8	13.4	32.1	18.4	34.4	23.4	36.8	28.4	39.1	33.4	41.4	38.4	43.7
3.5	27.5	8.5	29.9	13.5	32.2	18.5	34.5	23.5	36.8	28.5	39.1	33.5	41.4	38.5	43.8
3.6	27.6	8.6	29.9	13.6	32.2	18.6	34.5	23.6	36.9	28.6	39.2	33.6	41.5	38.6	43.8
3.7	27.6	8.7	30.0	13.7	32.3	18.7	34.6	23.7	36.9	28.7	39.2	33.7	41.5	38.7	43.8
3.8	27.7	8.8	30.0	13.8	32.3	18.8	34.6	23.8	36.9	28.8	39.3	33.8	41.6	38.8	43.9
3.9	27.7	8.9	30.0	13.9	32.4	18.9	34.7	23.9	37.0	28.9	39.3	33.9	41.6	38.9	43.9
4.0	27.8	9.0	30.1	14.0	32.4	19.0	34.7	24.0	37.0	29.0	39.4	34.0	41.7	39.0	44.0
4.1	27.8	9.1	30.1	14.1	32.5	19.1	34.8	24.1	37.1	29.1	39.4	34.1	41.7	39.1	44.0
4.2	27.9	9.2	30.2	14.2	32.5	19.2	34.8	24.2	37.1	29.2	39.4	34.2	41.8	39.2	44.1
4.3	27.9	9.3	30.2	14.3	32.5	19.3	34.9	24.3	37.2	29.3	39.5	34.3	41.8	39.3	44.1
4.4	28.0	9.4	30.3	14.4	32.6	19.4	34.9	24.4	37.2	29.4	39.5	34.4	41.9	39.4	44.2
4.5	28.0	9.5	30.3	14.5	32.6	19.5	35.0	24.5	37.3	29.5	39.6	34.5	41.9	39.5	44.2
4.6	28.1	9.6	30.4	14.6	32.7	19.6	35.0	24.6	37.3	29.6	39.6	34.6	41.9	39.6	44.3
4.7	28.1	9.7	30.4	14.7	32.7	19.7	35.0	24.7	37.4	29.7	39.7	34.7	42.0	39.7	44.3
4.8	28.1	9.8	30.5	14.8	32.8	19.8	35.1	24.8	37.4	29.8	39.7	34.8	42.0	39.8	44.4
4.9	28.2	9.9	30.5	14.9	32.8	19.9	35.1	24.9	37.5	29.9	39.8	34.9	42.1	39.9	44.4

TABLE NO. XXV.

Level Cross Sections.

CUBIC YARDS IN CORRESPONDING PRISMS, $\frac{100}{9}$ FEET LONG.

Road-bed, 10 feet wide. Side slopes, 1½ to 1.

Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.
0.0	0.0	5.0	54	10.0	154	15.0	301	20.0	494	25.0	733	30.0	1019	35.0	1350
0.1	0.6	5.1	56	10.1	157	15.1	304	20.1	498	25.1	738	30.1	1025	35.1	1357
0.2	1.3	5.2	57	10.2	159	15.2	308	20.2	503	25.2	744	30.2	1031	35.2	1365
0.3	1.9	5.3	59	10.3	162	15.3	311	20.3	507	25.3	749	30.3	1037	35.3	1372
0.4	2.6	5.4	60	10.4	164	15.4	315	20.4	511	25.4	754	30.4	1043	35.4	1379
0.5	3.3	5.5	62	10.5	167	15.5	318	20.5	516	25.5	759	30.5	1050	35.5	1386
0.6	4.0	5.6	64	10.6	169	15.6	322	20.6	520	25.6	765	30.6	1056	35.6	1393
0.7	4.8	5.7	65	10.7	172	15.7	325	20.7	525	25.7	770	30.7	1062	35.7	1400
0.8	5.5	5.8	67	10.8	175	15.8	329	20.8	529	25.8	776	30.8	1068	35.8	1408
0.9	6.3	5.9	69	10.9	177	15.9	332	20.9	533	25.9	781	30.9	1075	35.9	1415
1.0	7	6.0	70	11.0	180	16.0	336	21.0	538	26.0	786	31.0	1081	36.0	1422
1.1	8	6.1	72	11.1	183	16.1	339	21.1	542	26.1	792	31.1	1088	36.1	1430
1.2	9	6.2	74	11.2	185	16.2	343	21.2	547	26.2	797	31.2	1094	36.2	1437
1.3	10	6.3	76	11.3	188	16.3	347	21.3	552	26.3	803	31.3	1100	36.3	1444
1.4	10	6.4	77	11.4	191	16.4	350	21.4	556	26.4	808	31.4	1107	36.4	1452
1.5	11	6.5	79	11.5	193	16.5	354	21.5	561	26.5	814	31.5	1113	36.5	1459
1.6	12	6.6	81	11.6	196	16.6	358	21.6	565	26.6	819	31.6	1120	36.6	1466
1.7	13	6.7	83	11.7	199	16.7	361	21.7	570	26.7	825	31.7	1126	36.7	1474
1.8	14	6.8	85	11.8	202	16.8	365	21.8	575	26.8	830	31.8	1133	36.8	1481
1.9	15	6.9	87	11.9	205	16.9	369	21.9	579	26.9	836	31.9	1139	36.9	1489
2.0	16	7.0	89	12.0	207	17.0	373	22.0	584	27.0	842	32.0	1146	37.0	1496
2.1	17	7.1	91	12.1	210	17.1	376	22.1	589	27.1	847	32.1	1152	37.1	1503
2.2	18	7.2	92	12.2	213	17.2	380	22.2	593	27.2	853	32.2	1159	37.2	1511
2.3	19	7.3	94	12.3	216	17.3	384	22.3	598	27.3	859	32.3	1165	37.3	1518
2.4	20	7.4	96	12.4	219	17.4	388	22.4	603	27.4	864	32.4	1172	37.4	1526
2.5	21	7.5	98	12.5	222	17.5	392	22.5	608	27.5	870	32.5	1179	37.5	1534
2.6	22	7.6	100	12.6	225	17.6	395	22.6	612	27.6	876	32.6	1185	37.6	1541
2.7	23	7.7	102	12.7	228	17.7	399	22.7	617	27.7	881	32.7	1192	37.7	1549
2.8	25	7.8	104	12.8	231	17.8	403	22.8	622	27.8	887	32.8	1199	37.8	1556
2.9	26	7.9	107	12.9	234	17.9	407	22.9	627	27.9	893	32.9	1205	37.9	1564
3.0	27	8.0	109	13.0	237	18.0	411	23.0	632	28.0	899	33.0	1212	38.0	1572
3.1	28	8.1	111	13.1	240	18.1	415	23.1	637	28.1	905	33.1	1219	38.1	1579
3.2	29	8.2	113	13.2	243	18.2	419	23.2	642	28.2	910	33.2	1226	38.2	1587
3.3	30	8.3	115	13.3	246	18.3	423	23.3	647	28.3	916	33.3	1232	38.3	1595
3.4	32	8.4	117	13.4	249	18.4	427	23.4	651	28.4	922	33.4	1239	38.4	1602
3.5	33	8.5	119	13.5	252	18.5	431	23.5	656	28.5	928	33.5	1246	38.5	1610
3.6	34	8.6	122	13.6	255	18.6	435	23.6	661	28.6	934	33.6	1253	38.6	1618
3.7	36	8.7	124	13.7	258	18.7	439	23.7	666	28.7	940	33.7	1260	38.7	1626
3.8	37	8.8	126	13.8	262	18.8	443	23.8	671	28.8	946	33.8	1266	38.8	1633
3.9	38	8.9	128	13.9	265	18.9	447	23.9	676	28.9	952	33.9	1273	38.9	1641
4.0	40	9.0	131	14.0	268	19.0	452	24.0	681	29.0	958	34.0	1280	39.0	1649
4.1	41	9.1	133	14.1	271	19.1	456	24.1	687	29.1	964	34.1	1287	39.1	1657
4.2	42	9.2	135	14.2	274	19.2	460	24.2	692	29.2	970	34.2	1294	39.2	1665
4.3	44	9.3	137	14.3	278	19.3	464	24.3	697	29.3	976	34.3	1301	39.3	1673
4.4	45	9.4	140	14.4	281	19.4	468	24.4	702	29.4	982	34.4	1308	39.4	1681
4.5	47	9.5	142	14.5	284	19.5	472	24.5	707	29.5	988	34.5	1315	39.5	1689
4.6	48	9.6	145	14.6	287	19.6	477	24.6	712	29.6	994	34.6	1322	39.6	1696
4.7	49	9.7	147	14.7	291	19.7	481	24.7	717	29.7	1000	34.7	1329	39.7	1704
4.8	51	9.8	149	14.8	294	19.8	485	24.8	723	29.8	1006	34.8	1336	39.8	1712
4.9	52	9.9	152	14.9	298	19.9	490	24.9	728	29.9	1012	34.9	1343	39.9	1720

TABLE NO. XXVI.

Side Triangles.

CUBIC YARDS IN CORRESPONDING PRISMS $\frac{100}{9}$ FEET LONG.

Road-bed 10 feet wide. Side slopes 1½ to 1.

Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.
0.0	1.5	5.0	3.9	10.0	6.2	15.0	8.5	20.0	10.8	25.0	13.1	30.0	15.4	35.0	17.7
0.1	1.6	5.1	3.9	10.1	6.2	15.1	8.5	20.1	10.8	25.1	13.2	30.1	15.5	35.1	17.8
0.2	1.6	5.2	4.0	10.2	6.3	15.2	8.6	20.2	10.9	25.2	13.2	30.2	15.5	35.2	17.8
0.3	1.7	5.3	4.0	10.3	6.3	15.3	8.6	20.3	10.9	25.3	13.3	30.3	15.6	35.3	17.9
0.4	1.7	5.4	4.0	10.4	6.4	15.4	8.7	20.4	11.0	25.4	13.3	30.4	15.6	35.4	17.9
0.5	1.8	5.5	4.1	10.5	6.4	15.5	8.7	20.5	11.0	25.5	13.3	30.5	15.7	35.5	18.0
0.6	1.8	5.6	4.1	10.6	6.5	15.6	8.8	20.6	11.1	25.6	13.4	30.6	15.7	35.6	18.0
0.7	1.9	5.7	4.2	10.7	6.5	15.7	8.8	20.7	11.1	25.7	13.4	30.7	15.8	35.7	18.1
0.8	1.9	5.8	4.2	10.8	6.5	15.8	8.9	20.8	11.2	25.8	13.5	30.8	15.8	35.8	18.1
0.9	2.0	5.9	4.3	10.9	6.6	15.9	8.9	20.9	11.2	25.9	13.5	30.9	15.8	35.9	18.2
1.0	2.0	6.0	4.3	11.0	6.6	16.0	9.0	21.0	11.3	26.0	13.6	31.0	15.9	36.0	18.2
1.1	2.1	6.1	4.4	11.1	6.7	16.1	9.0	21.1	11.3	26.1	13.6	31.1	15.9	36.1	18.3
1.2	2.1	6.2	4.4	11.2	6.7	16.2	9.0	21.2	11.4	26.2	13.7	31.2	16.0	36.2	18.3
1.3	2.1	6.3	4.5	11.3	6.8	16.3	9.1	21.3	11.4	26.3	13.7	31.3	16.0	36.3	18.3
1.4	2.2	6.4	4.5	11.4	6.8	16.4	9.1	21.4	11.5	26.4	13.8	31.4	16.1	36.4	18.4
1.5	2.2	6.5	4.6	11.5	6.9	16.5	9.2	21.5	11.5	26.5	13.8	31.5	16.1	36.5	18.4
1.6	2.3	6.6	4.6	11.6	6.9	16.6	9.2	21.6	11.5	26.6	13.9	31.6	16.2	36.6	18.5
1.7	2.3	6.7	4.6	11.7	7.0	16.7	9.3	21.7	11.6	26.7	13.9	31.7	16.2	36.7	18.5
1.8	2.4	6.8	4.7	11.8	7.0	16.8	9.3	21.8	11.6	26.8	14.0	31.8	16.3	36.8	18.6
1.9	2.4	6.9	4.7	11.9	7.1	16.9	9.4	21.9	11.7	26.9	14.0	31.9	16.3	36.9	18.6
2.0	2.5	7.0	4.8	12.0	7.1	17.0	9.4	22.0	11.7	27.0	14.0	32.0	16.4	37.0	18.7
2.1	2.5	7.1	4.8	12.1	7.1	17.1	9.5	22.1	11.8	27.1	14.1	32.1	16.4	37.1	18.7
2.2	2.6	7.2	4.9	12.2	7.2	17.2	9.5	22.2	11.8	27.2	14.1	32.2	16.5	37.2	18.8
2.3	2.6	7.3	4.9	12.3	7.2	17.3	9.6	22.3	11.9	27.3	14.2	32.3	16.5	37.3	18.8
2.4	2.7	7.4	5.0	12.4	7.3	17.4	9.6	22.4	11.9	27.4	14.2	32.4	16.5	37.4	18.9
2.5	2.7	7.5	5.0	12.5	7.3	17.5	9.6	22.5	12.0	27.5	14.3	32.5	16.6	37.5	18.9
2.6	2.7	7.6	5.1	12.6	7.4	17.6	9.7	22.6	12.0	27.6	14.3	32.6	16.6	37.6	19.0
2.7	2.8	7.7	5.1	12.7	7.4	17.7	9.7	22.7	12.1	27.7	14.4	32.7	16.7	37.7	19.0
2.8	2.8	7.8	5.2	12.8	7.5	17.8	9.8	22.8	12.1	27.8	14.4	32.8	16.7	37.8	19.0
2.9	2.9	7.9	5.2	12.9	7.5	17.9	9.8	22.9	12.1	27.9	14.5	32.9	16.8	37.9	19.1
3.0	2.9	8.0	5.2	13.0	7.6	18.0	9.9	23.0	12.2	28.0	14.5	33.0	16.8	38.0	19.1
3.1	3.0	8.1	5.3	13.1	7.6	18.1	9.9	23.1	12.2	28.1	14.6	33.1	16.9	38.1	19.2
3.2	3.0	8.2	5.3	13.2	7.7	18.2	10.0	23.2	12.3	28.2	14.6	33.2	16.9	38.2	19.2
3.3	3.1	8.3	5.4	13.3	7.7	18.3	10.0	23.3	12.3	28.3	14.6	33.3	17.0	38.3	19.3
3.4	3.1	8.4	5.4	13.4	7.7	18.4	10.1	23.4	12.4	28.4	14.7	33.4	17.0	38.4	19.3
3.5	3.2	8.5	5.5	13.5	7.8	18.5	10.1	23.5	12.4	28.5	14.7	33.5	17.1	38.5	19.4
3.6	3.2	8.6	5.5	13.6	7.8	18.6	10.2	23.6	12.5	28.6	14.8	33.6	17.1	38.6	19.4
3.7	3.3	8.7	5.6	13.7	7.9	18.7	10.2	23.7	12.5	28.7	14.8	33.7	17.1	38.7	19.5
3.8	3.3	8.8	5.6	13.8	7.9	18.8	10.2	23.8	12.6	28.8	14.9	33.8	17.2	38.8	19.5
3.9	3.3	8.9	5.7	13.9	8.0	18.9	10.3	23.9	12.6	28.9	14.9	33.9	17.2	38.9	19.6
4.0	3.4	9.0	5.7	14.0	8.0	19.0	10.3	24.0	12.7	29.0	15.0	34.0	17.3	39.0	19.6
4.1	3.4	9.1	5.8	14.1	8.1	19.1	10.4	24.1	12.7	29.1	15.0	34.1	17.3	39.1	19.6
4.2	3.5	9.2	5.8	14.2	8.1	19.2	10.4	24.2	12.7	29.2	15.1	34.2	17.4	39.2	19.7
4.3	3.5	9.3	5.8	14.3	8.2	19.3	10.5	24.3	12.8	29.3	15.1	34.3	17.4	39.3	19.7
4.4	3.6	9.4	5.9	14.4	8.2	19.4	10.5	24.4	12.8	29.4	15.2	34.4	17.5	39.4	19.8
4.5	3.6	9.5	5.9	14.5	8.3	19.5	10.6	24.5	12.9	29.5	15.2	34.5	17.5	39.5	19.8
4.6	3.7	9.6	6.0	14.6	8.3	19.6	10.6	24.6	12.9	29.6	15.2	34.6	17.6	39.6	19.9
4.7	3.7	9.7	6.0	14.7	8.3	19.7	10.7	24.7	13.0	29.7	15.3	34.7	17.6	39.7	19.9
4.8	3.8	9.8	6.1	14.8	8.4	19.8	10.7	24.8	13.0	29.8	15.3	34.8	17.7	39.8	20.0
4.9	3.8	9.9	6.1	14.9	8.4	19.9	10.8	24.9	13.1	29.9	15.4	34.9	17.7	39.9	20.0

TABLE NO. XXVII.

Level Cross Sections.

CUBIC YARDS IN CORRESPONDING PRISMS, $\frac{100}{9}$ FEET LONG.

Road-bed 12 feet wide. Side slopes 1 to 1.

Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.
0.0	0.0	5.0	52	10.0	136	15.0	250	20.0	395	25.0	571	30.0	778	35.0	1015
0.1	0.7	5.1	54	10.1	138	15.1	253	20.1	398	25.1	575	30.1	782	35.1	1021
0.2	1.5	5.2	55	10.2	140	15.2	255	20.2	402	25.2	579	30.2	787	35.2	1026
0.3	2.3	5.3	57	10.3	142	15.3	258	20.3	405	25.3	583	30.3	791	35.3	1031
0.4	3.1	5.4	58	10.4	144	15.4	260	20.4	408	25.4	586	30.4	796	35.4	1036
0.5	4.0	5.5	59	10.5	146	15.5	263	20.5	411	25.5	590	30.5	800	35.5	1041
0.6	4.7	5.6	61	10.6	148	15.6	266	20.6	415	25.6	594	30.6	805	35.6	1046
0.7	5.5	5.7	62	10.7	150	15.7	268	20.7	418	25.7	598	30.7	809	35.7	1051
0.8	6.3	5.8	64	10.8	152	15.8	271	20.8	421	25.8	602	30.8	814	35.8	1056
0.9	7.2	5.9	65	10.9	154	15.9	274	20.9	424	25.9	606	30.9	818	35.9	1061
1.0	8	6.0	67	11.0	156	16.0	277	21.0	428	26.0	610	31.0	823	36.0	1067
1.1	9	6.1	68	11.1	158	16.1	279	21.1	431	26.1	614	31.1	827	36.1	1072
1.2	10	6.2	70	11.2	160	16.2	282	21.2	434	26.2	618	31.2	832	36.2	1077
1.3	11	6.3	71	11.3	163	16.3	285	21.3	438	26.3	622	31.3	837	36.3	1082
1.4	12	6.4	73	11.4	165	16.4	288	21.4	441	26.4	626	31.4	841	36.4	1088
1.5	13	6.5	74	11.5	167	16.5	290	21.5	445	26.5	630	31.5	846	36.5	1093
1.6	13	6.6	76	11.6	169	16.6	293	21.6	448	26.6	634	31.6	850	36.6	1098
1.7	14	6.7	77	11.7	171	16.7	296	21.7	451	26.7	638	31.7	855	36.7	1103
1.8	15	6.8	79	11.8	173	16.8	299	21.8	455	26.8	642	31.8	860	36.8	1109
1.9	16	6.9	81	11.9	176	16.9	301	21.9	458	26.9	646	31.9	864	36.9	1114
2.0	17	7.0	82	12.0	178	17.0	304	22.0	462	27.0	650	32.0	869	37.0	1119
2.1	18	7.1	84	12.1	180	17.1	307	22.1	465	27.1	654	32.1	874	37.1	1124
2.2	19	7.2	85	12.2	182	17.2	310	22.2	469	27.2	658	32.2	879	37.2	1130
2.3	20	7.3	87	12.3	185	17.3	313	22.3	472	27.3	662	32.3	883	37.3	1135
2.4	21	7.4	89	12.4	187	17.4	316	22.4	476	27.4	666	32.4	888	37.4	1140
2.5	22	7.5	90	12.5	189	17.5	319	22.5	479	27.5	671	32.5	893	37.5	1146
2.6	23	7.6	92	12.6	191	17.6	322	22.6	483	27.6	675	32.6	898	37.6	1151
2.7	25	7.7	94	12.7	194	17.7	325	22.7	486	27.7	679	32.7	902	37.7	1157
2.8	26	7.8	95	12.8	196	17.8	327	22.8	490	27.8	683	32.8	907	37.8	1162
2.9	27	7.9	97	12.9	198	17.9	330	22.9	493	27.9	687	32.9	912	37.9	1167
3.0	28	8.0	99	13.0	201	18.0	333	23.0	497	28.0	691	33.0	917	38.0	1173
3.1	29	8.1	101	13.1	203	18.1	336	23.1	501	28.1	696	33.1	921	38.1	1178
3.2	30	8.2	102	13.2	205	18.2	339	23.2	504	28.2	700	33.2	926	38.2	1184
3.3	31	8.3	104	13.3	208	18.3	342	23.3	508	28.3	704	33.3	931	38.3	1189
3.4	32	8.4	106	13.4	210	18.4	345	23.4	511	28.4	708	33.4	936	38.4	1195
3.5	33	8.5	108	13.5	213	18.5	348	23.5	515	28.5	713	33.5	941	38.5	1200
3.6	35	8.6	109	13.6	215	18.6	351	23.6	519	28.6	717	33.6	946	38.6	1206
3.7	36	8.7	111	13.7	217	18.7	354	23.7	522	28.7	721	33.7	951	38.7	1211
3.8	37	8.8	113	13.8	220	18.8	357	23.8	526	28.8	725	33.8	956	38.8	1217
3.9	38	8.9	115	13.9	222	18.9	361	23.9	530	28.9	730	33.9	961	38.9	1222
4.0	40	9.0	117	14.0	225	19.0	364	24.0	533	29.0	734	34.0	965	39.0	1228
4.1	41	9.1	119	14.1	227	19.1	367	24.1	537	29.1	738	34.1	970	39.1	1233
4.2	42	9.2	120	14.2	230	19.2	370	24.2	541	29.2	743	34.2	975	39.2	1239
4.3	43	9.3	122	14.3	232	19.3	373	24.3	545	29.3	747	34.3	980	39.3	1245
4.4	45	9.4	124	14.4	235	19.4	376	24.4	548	29.4	751	34.4	985	39.4	1250
4.5	46	9.5	126	14.5	237	19.5	379	24.5	552	29.5	756	34.5	990	39.5	1256
4.6	47	9.6	128	14.6	240	19.6	382	24.6	556	29.6	760	34.6	995	39.6	1261
4.7	48	9.7	130	14.7	242	19.7	385	24.7	560	29.7	765	34.7	1000	39.7	1267
4.8	50	9.8	132	14.8	245	19.8	389	24.8	563	29.8	769	34.8	1005	39.8	1273
4.9	51	9.9	134	14.9	247	19.9	392	24.9	567	29.9	773	34.9	1010	39.9	1278

TABLE NO. XXVIII.

Side Triangles.

CUBIC YARDS IN CORRESPONDING PRISMS, $\frac{100}{9}$ FEET LONG.

Road-bed 12 feet wide. Side slopes 1 to 1.

Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.
0.0	1.9	5.0	3.4	10.0	4.9	15.0	6.5	20.0	8.0	25.0	9.6	30.0	11.1	35.0	12.7
0.1	1.9	5.1	3.4	10.1	5.0	15.1	6.5	20.1	8.1	25.1	9.6	30.1	11.1	35.1	12.7
0.2	1.9	5.2	3.5	10.2	5.0	15.2	6.5	20.2	8.1	25.2	9.6	30.2	11.2	35.2	12.7
0.3	1.9	5.3	3.5	10.3	5.0	15.3	6.6	20.3	8.1	25.3	9.7	30.3	11.2	35.3	12.7
0.4	2.0	5.4	3.5	10.4	5.1	15.4	6.6	20.4	8.1	25.4	9.7	30.4	11.2	35.4	12.8
0.5	2.0	5.5	3.5	10.5	5.1	15.5	6.6	20.5	8.2	25.5	9.7	30.5	11.3	35.5	12.8
0.6	2.0	5.6	3.6	10.6	5.1	15.6	6.7	20.6	8.2	25.6	9.8	30.6	11.3	35.6	12.8
0.7	2.1	5.7	3.6	10.7	5.2	15.7	6.7	20.7	8.2	25.7	9.8	30.7	11.3	35.7	12.9
0.8	2.1	5.8	3.6	10.8	5.2	15.8	6.7	20.8	8.3	25.8	9.8	30.8	11.4	35.8	12.9
0.9	2.1	5.9	3.7	10.9	5.2	15.9	6.8	20.9	8.3	25.9	9.8	30.9	11.4	35.9	12.9
1.0	2.2	6.0	3.7	11.0	5.2	16.0	6.8	21.0	8.3	26.0	9.9	31.0	11.4	36.0	13.0
1.1	2.2	6.1	3.7	11.1	5.3	16.1	6.8	21.1	8.4	26.1	9.9	31.1	11.5	36.1	13.0
1.2	2.2	6.2	3.8	11.2	5.3	16.2	6.9	21.2	8.4	26.2	9.9	31.2	11.5	36.2	13.0
1.3	2.3	6.3	3.8	11.3	5.3	16.3	6.9	21.3	8.4	26.3	10.0	31.3	11.5	36.3	13.1
1.4	2.3	6.4	3.8	11.4	5.4	16.4	6.9	21.4	8.5	26.4	10.0	31.4	11.5	36.4	13.1
1.5	2.3	6.5	3.9	11.5	5.4	16.5	6.9	21.5	8.5	26.5	10.0	31.5	11.6	36.5	13.1
1.6	2.3	6.6	3.9	11.6	5.4	16.6	7.0	21.6	8.5	26.6	10.1	31.6	11.6	36.6	13.1
1.7	2.4	6.7	3.9	11.7	5.5	16.7	7.0	21.7	8.5	26.7	10.1	31.7	11.6	36.7	13.2
1.8	2.4	6.8	4.0	11.8	5.5	16.8	7.0	21.8	8.6	26.8	10.1	31.8	11.7	36.8	13.2
1.9	2.4	6.9	4.0	11.9	5.5	16.9	7.1	21.9	8.6	26.9	10.2	31.9	11.7	36.9	13.2
2.0	2.5	7.0	4.0	12.0	5.6	17.0	7.1	22.0	8.6	27.0	10.2	32.0	11.7	37.0	13.3
2.1	2.5	7.1	4.0	12.1	5.6	17.1	7.1	22.1	8.7	27.1	10.2	32.1	11.8	37.1	13.3
2.2	2.5	7.2	4.1	12.2	5.6	17.2	7.2	22.2	8.7	27.2	10.2	32.2	11.8	37.2	13.3
2.3	2.6	7.3	4.1	12.3	5.6	17.3	7.2	22.3	8.7	27.3	10.3	32.3	11.8	37.3	13.4
2.4	2.6	7.4	4.1	12.4	5.7	17.4	7.2	22.4	8.8	27.4	10.3	32.4	11.9	37.4	13.4
2.5	2.6	7.5	4.2	12.5	5.7	17.5	7.3	22.5	8.8	27.5	10.3	32.5	11.9	37.5	13.4
2.6	2.7	7.6	4.2	12.6	5.7	17.6	7.3	22.6	8.8	27.6	10.4	32.6	11.9	37.6	13.5
2.7	2.7	7.7	4.2	12.7	5.8	17.7	7.3	22.7	8.9	27.7	10.4	32.7	11.9	37.7	13.5
2.8	2.7	7.8	4.3	12.8	5.8	17.8	7.3	22.8	8.9	27.8	10.4	32.8	12.0	37.8	13.5
2.9	2.7	7.9	4.3	12.9	5.8	17.9	7.4	22.9	8.9	27.9	10.5	32.9	12.0	37.9	13.5
3.0	2.8	8.0	4.3	13.0	5.9	18.0	7.4	23.0	9.0	28.0	10.5	33.0	12.0	38.0	13.6
3.1	2.8	8.1	4.4	13.1	5.9	18.1	7.4	23.1	9.0	28.1	10.5	33.1	12.1	38.1	13.6
3.2	2.8	8.2	4.4	13.2	5.9	18.2	7.5	23.2	9.0	28.2	10.6	33.2	12.1	38.2	13.6
3.3	2.9	8.3	4.4	13.3	6.0	18.3	7.5	23.3	9.0	28.3	10.6	33.3	12.1	38.3	13.7
3.4	2.9	8.4	4.4	13.4	6.0	18.4	7.5	23.4	9.1	28.4	10.6	33.4	12.2	38.4	13.7
3.5	2.9	8.5	4.5	13.5	6.0	18.5	7.6	23.5	9.1	28.5	10.6	33.5	12.2	38.5	13.7
3.6	3.0	8.6	4.5	13.6	6.0	18.6	7.6	23.6	9.1	28.6	10.7	33.6	12.2	38.6	13.8
3.7	3.0	8.7	4.5	13.7	6.1	18.7	7.6	23.7	9.2	28.7	10.7	33.7	12.3	38.7	13.8
3.8	3.0	8.8	4.6	13.8	6.1	18.8	7.7	23.8	9.2	28.8	10.7	33.8	12.3	38.8	13.8
3.9	3.1	8.9	4.6	13.9	6.1	18.9	7.7	23.9	9.2	28.9	10.8	33.9	12.3	38.9	13.9
4.0	3.1	9.0	4.6	14.0	6.2	19.0	7.7	24.0	9.3	29.0	10.8	34.0	12.3	39.0	13.9
4.1	3.1	9.1	4.7	14.1	6.2	19.1	7.7	24.1	9.3	29.1	10.8	34.1	12.4	39.1	13.9
4.2	3.1	9.2	4.7	14.2	6.2	19.2	7.8	24.2	9.3	29.2	10.9	34.2	12.4	39.2	14.0
4.3	3.2	9.3	4.7	14.3	6.3	19.3	7.8	24.3	9.4	29.3	10.9	34.3	12.4	39.3	14.0
4.4	3.2	9.4	4.8	14.4	6.3	19.4	7.8	24.4	9.4	29.4	10.9	34.4	12.5	39.4	14.0
4.5	3.2	9.5	4.8	14.5	6.3	19.5	7.9	24.5	9.4	29.5	11.0	34.5	12.5	39.5	14.0
4.6	3.3	9.6	4.8	14.6	6.4	19.6	7.9	24.6	9.4	29.6	11.0	34.6	12.5	39.6	14.1
4.7	3.3	9.7	4.8	14.7	6.4	19.7	7.9	24.7	9.5	29.7	11.0	34.7	12.6	39.7	14.1
4.8	3.3	9.8	4.9	14.8	6.4	19.8	8.0	24.8	9.5	29.8	11.0	34.8	12.6	39.8	14.1
4.9	3.4	9.9	4.9	14.9	6.5	19.9	8.0	24.9	9.5	29.9	11.1	34.9	12.6	39.9	14.2

TABLE NO. XXIX.

Level Cross Sections.

CUBIC YARDS IN CORRESPONDING PRISMS $\frac{100}{9}$ FEET LONG.

Road-bed 14 feet wide. Side slopes 1½ to 1.

Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.
0.0	0.0	5.0	66.4	10.0	179.0	15.0	338.0	20.0	543.2	25.0	794.8	30.0	1092.6	35.0	1436.7
0.1	0.9	5.1	68.2	10.1	181.7	15.1	341.6	20.1	547.8	25.1	800.3	30.1	1099.0	35.1	1444.1
0.2	1.8	5.2	70.0	10.2	184.5	15.2	345.3	20.2	552.4	25.2	805.8	30.2	1105.5	35.2	1451.5
0.3	2.7	5.3	71.8	10.3	187.2	15.3	349.0	20.3	557.0	25.3	811.3	30.3	1111.9	35.3	1458.8
0.4	3.6	5.4	73.7	10.4	190.0	15.4	352.7	20.4	561.6	25.4	816.9	30.4	1118.4	35.4	1466.3
0.5	4.6	5.5	75.5	10.5	192.8	15.5	356.4	20.5	566.3	25.5	822.5	30.5	1124.9	35.5	1473.7
0.6	5.5	5.6	77.4	10.6	195.6	15.6	360.1	20.6	571.0	25.6	828.0	30.6	1131.4	35.6	1481.1
0.7	6.5	5.7	79.3	10.7	198.5	15.7	363.9	20.7	575.6	25.7	833.7	30.7	1138.0	35.7	1488.6
0.8	7.5	5.8	81.2	10.8	201.3	15.8	367.7	20.8	580.3	25.8	839.3	30.8	1144.5	35.8	1496.1
0.9	8.5	5.9	83.2	10.9	204.2	15.9	371.5	20.9	585.1	25.9	844.9	30.9	1151.1	35.9	1503.6
1.0	9.6	6.0	85.2	11.0	207.1	16.0	375.3	21.0	589.8	26.0	850.6	31.0	1157.7	36.0	1511.1
1.1	10.6	6.1	87.2	11.1	210.0	16.1	379.1	21.1	594.6	26.1	856.3	31.1	1164.3	36.1	1518.7
1.2	11.7	6.2	89.2	11.2	212.9	16.2	383.0	21.2	599.4	26.2	862.0	31.2	1171.0	36.2	1526.2
1.3	12.8	6.3	91.2	11.3	215.9	16.3	386.9	21.3	604.2	26.3	867.7	31.3	1177.6	36.3	1533.8
1.4	13.9	6.4	93.2	11.4	218.9	16.4	390.8	21.4	609.0	26.4	873.5	31.4	1184.3	36.4	1541.4
1.5	15.0	6.5	95.3	11.5	221.8	16.5	394.7	21.5	613.8	26.5	879.2	31.5	1191.0	36.5	1549.0
1.6	16.2	6.6	97.4	11.6	224.8	16.6	398.6	21.6	618.7	26.6	885.0	31.6	1197.7	36.6	1556.6
1.7	17.4	6.7	99.5	11.7	227.9	16.7	402.6	21.7	623.5	26.7	890.8	31.7	1204.4	36.7	1564.3
1.8	18.6	6.8	101.6	11.8	230.9	16.8	406.5	21.8	628.4	26.8	896.6	31.8	1211.1	36.8	1572.0
1.9	19.8	6.9	103.7	11.9	234.0	16.9	410.5	21.9	633.3	26.9	902.5	31.9	1217.9	36.9	1579.6
2.0	21.0	7.0	105.9	12.0	237.0	17.0	414.5	22.0	638.3	27.0	908.3	32.0	1224.7	37.0	1587.3
2.1	22.2	7.1	108.0	12.1	240.1	17.1	418.5	22.1	643.2	27.1	914.2	32.1	1231.5	37.1	1595.1
2.2	23.5	7.2	110.2	12.2	243.2	17.2	422.6	22.2	648.2	27.2	920.1	32.2	1238.3	37.2	1602.8
2.3	24.8	7.3	112.4	12.3	246.4	17.3	426.6	22.3	653.2	27.3	926.0	32.3	1245.1	37.3	1610.6
2.4	26.1	7.4	114.7	12.4	249.5	17.4	430.7	22.4	658.2	27.4	931.9	32.4	1252.0	37.4	1618.4
2.5	27.4	7.5	116.9	12.5	252.7	17.5	434.8	22.5	663.2	27.5	937.9	32.5	1258.9	37.5	1626.2
2.6	28.7	7.6	119.2	12.6	255.9	17.6	438.9	22.6	668.2	27.6	943.9	32.6	1265.8	37.6	1634.0
2.7	30.1	7.7	121.4	12.7	259.1	17.7	443.0	22.7	673.3	27.7	949.8	32.7	1272.7	37.7	1641.8
2.8	31.5	7.8	123.7	12.8	262.3	17.8	447.2	22.8	678.4	27.8	955.8	32.8	1279.6	37.8	1649.7
2.9	32.8	7.9	126.1	12.9	265.6	17.9	451.4	22.9	683.5	27.9	961.9	32.9	1286.6	37.9	1657.5
3.0	34.3	8.0	128.4	13.0	268.8	18.0	455.6	23.0	688.6	28.0	967.9	33.0	1293.5	38.0	1665.4
3.1	35.7	8.1	130.8	13.1	272.1	18.1	459.8	23.1	693.7	28.1	974.0	33.1	1300.5	38.1	1673.3
3.2	37.1	8.2	133.1	13.2	275.4	18.2	464.0	23.2	698.9	28.2	980.0	33.2	1307.5	38.2	1681.3
3.3	38.6	8.3	135.5	13.3	278.7	18.3	468.2	23.3	704.0	28.3	986.1	33.3	1314.5	38.3	1689.2
3.4	40.1	8.4	137.9	13.4	282.1	18.4	472.5	23.4	709.2	28.4	992.2	33.4	1321.6	38.4	1697.2
3.5	41.6	8.5	140.4	13.5	285.4	18.5	476.8	23.5	714.4	28.5	998.4	33.5	1328.6	38.5	1705.2
3.6	43.1	8.6	142.8	13.6	288.8	18.6	481.1	23.6	719.7	28.6	1004.5	33.6	1335.7	38.6	1713.2
3.7	44.7	8.7	145.3	13.7	292.2	18.7	485.4	23.7	724.9	28.7	1010.7	33.7	1342.8	38.7	1721.2
3.8	46.2	8.8	147.8	13.8	295.6	18.8	489.7	23.8	730.2	28.8	1016.9	33.8	1349.9	38.8	1729.2
3.9	47.8	8.9	150.3	13.9	299.0	18.9	494.1	23.9	735.4	28.9	1023.1	33.9	1357.0	38.9	1737.3
4.0	49.4	9.0	152.8	14.0	302.5	19.0	498.5	24.0	740.7	29.0	1029.3	34.0	1364.2	39.0	1745.4
4.1	51.0	9.1	155.3	14.1	305.9	19.1	502.8	24.1	746.1	29.1	1035.6	34.1	1371.4	39.1	1753.5
4.2	52.6	9.2	157.9	14.2	309.4	19.2	507.3	24.2	751.4	29.2	1041.8	34.2	1378.6	39.2	1761.6
4.3	54.3	9.3	160.5	14.3	312.9	19.3	511.7	24.3	756.8	29.3	1048.1	34.3	1385.8	39.3	1769.7
4.4	56.0	9.4	163.0	14.4	316.4	19.4	516.1	24.4	762.1	29.4	1054.4	34.4	1393.0	39.4	1777.9
4.5	57.6	9.5	165.7	14.5	320.0	19.5	520.6	24.5	767.5	29.5	1060.7	34.5	1400.2	39.5	1786.0
4.6	59.3	9.6	168.3	14.6	323.5	19.6	525.1	24.6	772.9	29.6	1067.1	34.6	1407.5	39.6	1794.2
4.7	61.1	9.7	170.9	14.7	327.1	19.7	529.6	24.7	778.4	29.7	1073.4	34.7	1414.8	39.7	1802.4
4.8	62.8	9.8	173.6	14.8	330.7	19.8	534.1	24.8	783.8	29.8	1079.8	34.8	1422.1	39.8	1810.7
4.9	64.6	9.9	176.3	14.9	334.3	19.9	538.7	24.9	789.3	29.9	1086.2	34.9	1429.4	39.9	1818.9

TABLE NO. XXX.

Side Triangles.

CUBIC YARDS IN CORRESPONDING PRISMS $\frac{100}{9}$ FEET LONG.

Road-bed 14 feet wide. Side slopes 1½ to 1.

Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.
0.0	2.16	5.0	4.48	10.0	6.79	15.0	9.10	20.0	11.42	25.0	13.73	30.0	16.05	35.0	18.36
0.1	2.21	5.1	4.52	10.1	6.84	15.1	9.15	20.1	11.47	25.1	13.78	30.1	16.10	35.1	18.41
0.2	2.25	5.2	4.57	10.2	6.88	15.2	9.20	20.2	11.51	25.2	13.83	30.2	16.14	35.2	18.46
0.3	2.30	5.3	4.61	10.3	6.93	15.3	9.24	20.3	11.56	25.3	13.87	30.3	16.19	35.3	18.50
0.4	2.35	5.4	4.66	10.4	6.98	15.4	9.29	20.4	11.60	25.4	13.92	30.4	16.23	35.4	18.55
0.5	2.39	5.5	4.71	10.5	7.02	15.5	9.34	20.5	11.65	25.5	13.97	30.5	16.28	35.5	18.60
0.6	2.44	5.6	4.75	10.6	7.07	15.6	9.38	20.6	11.70	25.6	14.01	30.6	16.33	35.6	18.64
0.7	2.48	5.7	4.80	10.7	7.11	15.7	9.43	20.7	11.74	25.7	14.06	30.7	16.37	35.7	18.69
0.8	2.53	5.8	4.85	10.8	7.16	15.8	9.48	20.8	11.79	25.8	14.10	30.8	16.42	35.8	18.73
0.9	2.58	5.9	4.89	10.9	7.21	15.9	9.52	20.9	11.84	25.9	14.15	30.9	16.47	35.9	18.78
1.0	2.62	6.0	4.94	11.0	7.25	16.0	9.57	21.0	11.88	26.0	14.20	31.0	16.51	36.0	18.83
1.1	2.67	6.1	4.98	11.1	7.30	16.1	9.61	21.1	11.93	26.1	14.24	31.1	16.56	36.1	18.87
1.2	2.72	6.2	5.03	11.2	7.35	16.2	9.66	21.2	11.98	26.2	14.29	31.2	16.60	36.2	18.92
1.3	2.76	6.3	5.08	11.3	7.39	16.3	9.71	21.3	12.02	26.3	14.34	31.3	16.65	36.3	18.97
1.4	2.81	6.4	5.12	11.4	7.44	16.4	9.75	21.4	12.07	26.4	14.38	31.4	16.70	36.4	19.01
1.5	2.85	6.5	5.17	11.5	7.48	16.5	9.80	21.5	12.11	26.5	14.43	31.5	16.74	36.5	19.06
1.6	2.90	6.6	5.22	11.6	7.53	16.6	9.85	21.6	12.16	26.6	14.48	31.6	16.79	36.6	19.10
1.7	2.95	6.7	5.26	11.7	7.58	16.7	9.89	21.7	12.21	26.7	14.52	31.7	16.84	36.7	19.15
1.8	2.99	6.8	5.31	11.8	7.62	16.8	9.94	21.8	12.25	26.8	14.57	31.8	16.88	36.8	19.20
1.9	3.04	6.9	5.35	11.9	7.67	16.9	9.98	21.9	12.30	26.9	14.61	31.9	16.93	36.9	19.24
2.0	3.09	7.0	5.40	12.0	7.72	17.0	10.03	22.0	12.35	27.0	14.66	32.0	16.98	37.0	19.29
2.1	3.13	7.1	5.45	12.1	7.76	17.1	10.08	22.1	12.39	27.1	14.71	32.1	17.02	37.1	19.34
2.2	3.18	7.2	5.49	12.2	7.81	17.2	10.12	22.2	12.44	27.2	14.75	32.2	17.07	37.2	19.38
2.3	3.23	7.3	5.54	12.3	7.85	17.3	10.17	22.3	12.48	27.3	14.80	32.3	17.11	37.3	19.43
2.4	3.27	7.4	5.59	12.4	7.90	17.4	10.22	22.4	12.53	27.4	14.85	32.4	17.16	37.4	19.48
2.5	3.32	7.5	5.63	12.5	7.95	17.5	10.26	22.5	12.58	27.5	14.89	32.5	17.21	37.5	19.52
2.6	3.36	7.6	5.68	12.6	7.99	17.6	10.31	22.6	12.62	27.6	14.94	32.6	17.25	37.6	19.57
2.7	3.41	7.7	5.73	12.7	8.04	17.7	10.35	22.7	12.67	27.7	14.98	32.7	17.30	37.7	19.61
2 8	3.46	7.8	5.77	12.8	8.09	17.8	10.40	22.8	12.72	27.8	15.03	32.8	17.35	37.8	19.66
2.9	3.50	7.9	5.82	12.9	8.13	17.9	10.45	22.9	12.76	27.9	15.08	32.9	17.39	37.9	19.71
3.0	3.55	8.0	5.86	13.0	8.18	18.0	10.49	23.0	12.81	28.0	15.12	33.0	17.44	38.0	19.75
3.1	3.60	8.1	5.91	13.1	8.23	18.1	10.54	23.1	12.85	28.1	15.17	33.1	17.48	38.1	19.80
3.2	3.64	8.2	5.96	13.2	8.27	18.2	10.59	23.2	12.90	28.2	15.22	33.2	17.53	38.2	19.85
3.3	3.69	8.3	6.00	13.3	8.32	18.3	10.63	23.3	12.95	28.3	15.26	33 3	17.58	38.3	19.89
3.4	3.78	8.4	6.05	13.4	8.36	18.4	10.68	23.4	12.99	28.4	15.31	33.4	17.62	38.4	19.94
3.5	3.78	8.5	6.10	13.5	8.41	18.5	10.73	23.5	13.04	28.5	15.35	33.5	17.67	38.5	19.98
3.6	3.83	8.6	6.14	13.6	8.46	18.6	10.77	23.6	13.09	28.6	15.40	33.6	17.72	38.6	20.03
3.7	3.87	8.7	6.19	13.7	8.50	18.7	10.82	23.7	13.13	28.7	15.45	33.7	17.76	38.7	20.08
3.8	3.92	8.8	6.23	13.8	8.55	18.8	10.86	23.8	13.18	28.8	15.49	33.8	17.81	38.8	20.12
3.9	3.97	8.9	6.28	13.9	8.60	18.9	10.91	23.9	13.23	28.9	15.54	33.9	17.85	38.9	20.17
4.0	4.01	9.0	6.33	14.0	8.64	19.0	10.96	24.0	13.27	29.0	15.59	34.0	17.90	39.0	20.22
4.1	4.06	9.1	6.37	14.1	8.69	19.1	11.00	24.1	13.32	29.1	15.63	34.1	17.95	39.1	20.26
4.2	4.10	9.2	6.42	14.2	8.78	19.2	11.05	24.2	13.36	29.2	15.68	34.2	17.99	39.2	20.31
4.3	4.15	9.3	6.47	14.3	8.78	19.3	11.10	24.3	13.41	29.3	15.73	34.3	18.04	39.3	20.35
4.4	4.20	9.4	6.51	14.4	8.83	19.4	11.14	24.4	13.46	29.4	15.77	34.4	18.09	39.4	20.40
4.5	4.24	9.5	6.56	14.5	8.87	19.5	11.19	24.5	13.50	29.5	15.82	34.5	18.13	39.5	20.45
4.6	4.29	9.6	6.60	14.6	8.92	19.6	11.23	24.6	13.55	29.6	15.86	34.6	18.18	39.6	20.49
4.7	4.34	9.7	6.65	14.7	8.97	19.7	11.28	24.7	13.60	29.7	15.91	34.7	18.23	39.7	20.54
4.8	4.38	9.8	6.70	14.8	9.01	19.8	11.33	24.8	13.64	29.8	15.96	34.8	18.27	39.8	20.59
4.9	4.43	9.9	6.74	14.9	9.06	19.9	11.37	24.9	13.69	29.9	16.00	34.9	18.32	39.9	20.63

TABLE NO. XXXI.

Level Cross Sections.

CUBIC YARDS IN CORRESPONDING PRISMS, $\frac{100}{9}$ FEET LONG.

Road-bed 16 feet wide. Side slopes 1 to 1.

Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.
0.0	0.0	5.0	64.8	10.0	160.5	15.0	287.0	20.0	444.4	25.0	632.7	30.0	851.9	35.0	1101.9.
0.1	1.0	5.1	66.4	10.1	162.7	15.1	289.9	20.1	447.9	25.1	636.8	30.1	856.5	35.1	1107.2
0.2	2.0	5.2	68.0	10.2	165.0	15.2	292.7	20.2	451.4	25.2	640.9	30.2	861.3	35.2	1112.5
0.3	3.0	5.3	69.7	10.3	167.2	15.3	295.6	20.3	454.9	25.3	645.0	30.3	866.0	35.3	1117.8
0.4	4.0	5.4	71.3	10.4	169.5	15.4	298.5	20.4	458.4	25.4	649.1	30.4	870.7	35.4	1123.2
0.5	5.1	5.5	73.0	10.5	171.8	15.5	301.4	20.5	461.9	25.5	653.2	30.5	875.5	35.5	1128.5
0.6	6.1	5.6	74.7	10.6	174.0	15.6	304.3	20.6	465.4	25.6	657.4	30.6	880.2	35.6	1133.9
0.7	7.2	5.7	76.4	10.7	176.4	15.7	307.2	20.7	468.9	25.7	661.5	30.7	885.0	35.7	1139.3
0.8	8.3	5.8	78.0	10.8	178.7	15.8	310.1	20.8	472.5	25.8	665.7	30.8	889.8	35.8	1144.7
0.9	9.4	5.9	79.8	10.9	181.0	15.9	313.1	20.9	476.1	25.9	669.9	30.9	894.6	35.9	1150.1
1.0	10.5	6.0	81.5	11.0	183.3	16.0	316.0	21.0	479.6	26.0	674.1	31.0	899.4	36.0	1155.6
1.1	11.6	6.1	83.2	11.1	185.7	16.1	319.0	21.1	483.2	26.1	678.3	31.1	904.2	36.1	1161.0
1.2	12.7	6.2	85.0	11.2	188.0	16.2	322.0	21.2	486.8	26.2	682.5	31.2	909.0	36.2	1166.4
1.3	13.9	6.3	86.7	11.3	190.4	16.3	325.0	21.3	490.4	26.3	686.7	31.3	913.9	36.3	1171.9
1.4	15.0	6.4	88.5	11.4	192.8	16.4	328.0	21.4	494.0	26.4	691.0	31.4	918.7	36.4	1177.4
1.5	16.2	6.5	90.3	11.5	195.2	16.5	331.0	21.5	497.7	26.5	695.2	31.5	923.6	36.5	1182.9
1.6	17.4	6.6	92.1	11.6	197.6	16.6	334.0	21.6	501.3	26.6	699.5	31.6	928.5	36.6	1188.4
1.7	18.6	6.7	93.9	11.7	200.1	16.7	337.1	21.7	505.0	26.7	703.8	31.7	933.4	36.7	1193.9
1.8	19.8	6.8	95.7	11.8	202.5	16.8	340.1	21.8	508.7	26.8	708.0	31.8	938.3	36.8	1199.4
1.9	21.0	6.9	97.5	11.9	205.0	16.9	343.2	21.9	512.4	26.9	712.4	31.9	943.2	36.9	1204.9
2.0	22.2	7.0	99.4	12.0	207.4	17.0	346.3	22.0	516.0	27.0	716.7	32.0	948.1	37.0	1210.5
2.1	23.5	7.1	101.2	12.1	209.9	17.1	349.4	22.1	519.8	27.1	721.0	32.1	953.1	37.1	1216.1
2.2	24.7	7.2	103.1	12.2	212.4	17.2	352.5	22.2	523.5	27.2	725.3	32.2	958.0	37.2	1221.6
2.3	26.0	7.3	105.0	12.3	214.9	17.3	355.6	22.3	527.2	27.3	729.7	32.3	963.0	37.3	1227.2
2.4	27.3	7.4	106.9	12.4	217.4	17.4	358.7	22.4	531.0	27.4	734.0	32.4	968.0	37.4	1232.8
2.5	28.5	7.5	108.8	12.5	219.9	17.5	361.9	22.5	534.7	27.5	738.4	32.5	973.0	37.5	1238.4
2.6	29.9	7.6	110.7	12.6	222.4	17.6	365.0	22.6	538.5	27.6	742.8	32.6	978.0	37.6	1244.0
2.7	31.2	7.7	112.6	12.7	225.0	17.7	368.2	22.7	542.3	27.7	747.2	32.7	983.0	37.7	1249.7
2.8	32.5	7.8	114.6	12.8	227.6	17.8	371.4	22.8	546.1	27.8	751.6	32.8	988.0	37.8	1255.3
2.9	33.8	7.9	116.5	12.9	230.1	17.9	374.6	22.9	549.9	27.9	756.1	32.9	993.1	37.9	1261.0
3.0	35.2	8.0	118.5	13.0	232.7	18.0	377.8	23.0	553.7	28.0	760.5	33.0	998.1	38.0	1266.7
3.1	36.5	8.1	120.5	13.1	235.3	18.1	381.0	23.1	557.5	28.1	764.9	33.1	1003.2	38.1	1272.4
3.2	37.9	8.2	122.5	13.2	237.9	18.2	384.2	23.2	561.4	28.2	769.4	33.2	1008.3	38.2	1278.0
3.3	39.3	8.3	124.5	13.3	240.5	18.3	387.5	23.3	565.2	28.3	773.9	33.3	1013.4	38.3	1283.8
3.4	40.7	8.4	126.5	13.4	243.2	18.4	390.7	23.4	569.1	28.4	778.4	33.4	1018.5	38.4	1289.5
3.5	42.1	8.5	128.5	13.5	245.8	18.5	394.0	23.5	573.0	28.5	782.9	33.5	1023.6	38.5	1295.2
3.6	43.6	8.6	130.6	13.6	248.5	18.6	397.3	23.6	576.9	28.6	787.4	33.6	1028.7	38.6	1301.0
3.7	45.0	8.7	132.6	13.7	251.2	18.7	400.5	23.7	580.8	28.7	791.9	33.7	1033.9	38.7	1306.7
3.8	46.5	8.8	134.7	13.8	253.9	18.8	403.9	23.8	584.7	28.8	796.4	33.8	1039.0	38.8	1312.5
3.9	47.9	8.9	136.8	13.9	256.5	18.9	407.2	23.9	588.6	28.9	801.0	33.9	1044.2	38.9	1318.3
4.0	49.4	9.0	138.9	14.0	259.3	19.0	410.5	24.0	592.6	29.0	805.6	34.0	1049.4	39.0	1324.1
4.1	50.9	9.1	141.0	14.1	262.0	19.1	413.8	24.1	596.5	29.1	810.1	34.1	1054.6	39.1	1329.9
4.2	52.4	9.2	143.1	14.2	264.7	19.2	417.2	24.2	600.5	29.2	814.7	34.2	1059.8	39.2	1335.7
4.3	53.9	9.3	145.2	14.3	267.5	19.3	420.5	24.3	604.5	29.3	819.3	34.3	1065.0	39.3	1341.5
4.4	55.4	9.4	147.4	14.4	270.2	19.4	423.9	24.4	608.5	29.4	823.9	34.4	1070.2	39.4	1347.4
4.5	56.9	9.5	149.5	14.5	273.0	19.5	427.3	24.5	612.5	29.5	828.5	34.5	1075.5	39.5	1353.2
4.6	58.5	9.6	151.7	14.6	275.8	19.6	430.7	24.6	616.5	29.6	833.2	34.6	1080.7	39.6	1359.1
4.7	60.1	9.7	153.9	14.7	278.6	19.7	434.1	24.7	620.5	29.7	837.8	34.7	1086.9	39.7	1365.0
4.8	61.6	9.8	156.1	14.8	281.4	19.8	437.6	24.8	624.6	29.8	842.5	34.8	1091.3	39.8	1370.9
4.9	63.2	9.9	158.3	14.9	284.2	19.9	441.0	24.9	628.6	29.9	847.2	34.9	1096.5	39.9	1376.8

TABLE NO. XXXII.

Side Triangles.

CUBIC YARDS IN CORRESPONDING PRISMS $\frac{100}{9}$ FEET LONG.

Road-bed 16 feet wide. Side slopes 1 to 1.

Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.
0.0	2.47	5.0	4.01	10.0	5.56	15.0	7.10	20.0	8.64	25.0	10.19	30.0	11.73	35.0	13.27
0.1	2.50	5.1	4.04	10.1	5.59	15.1	7.13	20.1	8.67	25.1	10.22	30.1	11.76	35.1	13.30
0.2	2.53	5.2	4.07	10.2	5.62	15.2	7.16	20.2	8.70	25.2	10.25	30.2	11.79	35.2	13.33
0.3	2.56	5.3	4.10	10.3	5.65	15.3	7.19	20.3	8.73	25.3	10.28	30.3	11.82	35.3	13.36
0.4	2.59	5.4	4.14	10.4	5.68	15.4	7.22	20.4	8.77	25.4	10.31	30.4	11.85	35.4	13.40
0.5	2.62	5.5	4.17	10.5	5.71	15.5	7.25	20.5	8.80	25.5	10.34	30.5	11.88	35.5	13.43
0.6	2.65	5.6	4.20	10.6	5.74	15.6	7.28	20.6	8.83	25.6	10.37	30.6	11.91	35.6	13.46
0.7	2.69	5.7	4.23	10.7	5.77	15.7	7.31	20.7	8.86	25.7	10.40	30.7	11.94	35.7	13.49
0 8	2.72	5.8	4.26	10.8	5.80	15.8	7.35	20.8	8.89	25.8	10.43	30.8	11.98	35.8	13.52
0.9	2.75	5.9	4.29	10.9	5.83	15.9	7.38	20.9	8.92	25.9	10.46	30.9	12.01	35.9	13.55
1.0	2.78	6.0	4.32	11.0	5.86	16.0	7.41	21.0	8.95	26.0	10.49	31.0	12.04	36.0	13.58
1.1	2.81	6.1	4.35	11.1	5.90	16.1	7.44	21.1	8.98	26.1	10.52	31.1	12.07	36.1	13.61
1.2	2.84	6.2	4.38	11.2	5.93	16.2	7.47	21.2	9.01	26.2	10.56	31.2	12.10	36.2	13.64
1.3	2.87	6.3	4.41	11.3	5.96	16.3	7.50	21.3	9.04	26.3	10.59	31.3	12.13	36.3	13.67
1.4	2.90	6.4	4.44	11.4	5.99	16.4	7.53	21.4	9.07	26.4	10.62	31.4	12.16	36.4	13.70
1.5	2.93	6.5	4.48	11.5	6.02	16.5	7.56	21.5	9.10	26.5	10.65	31.5	12.19	36.5	13.73
1.6	2.96	6.6	4.51	11.6	6.05	16.6	7.59	21.6	9.14	26.6	10.68	31.6	12.22	36.6	13.77
1.7	2.99	6.7	4.54	11.7	6.08	16.7	7.62	21.7	9.17	26.7	10.71	31.7	12.25	36.7	13.80
1.8	3.02	6.8	4.57	11.8	6.11	16.8	7.65	21.8	9.20	26.8	10.74	31.8	12.28	36.8	13.83
1.9	3.06	6.9	4.60	11.9	6.14	16.9	7.69	21.9	9.23	26.9	10.77	31.9	12.31	36.9	13.86
2.0	3.09	7.0	4.63	12.0	6.17	17.0	7.72	22.0	9.26	27.0	10.80	32.0	12.35	37.0	13.89
2.1	3.12	7.1	4.66	12.1	6.20	17.1	7.75	22.1	9.29	27.1	10.83	32.1	12.38	37.1	13.92
2.2	3.15	7.2	4.69	12.2	6.23	17.2	7.78	22.2	9.32	27.2	10.86	32.2	12.41	37.2	13.95
2.3	3.18	7.3	4.72	12.3	6.27	17.3	7.81	22.3	9.35	27.3	10.90	32.3	12.44	37.3	13.98
2.4	3.21	7.4	4.75	12.4	6.30	17.4	7.84	22.4	9.38	27.4	10.93	32.4	12.47	37.4	14.01
2.5	3.24	7.5	4.78	12.5	6.33	17.5	7.87	22.5	9.41	27.5	10.96	32.5	12.50	37.5	14.04
2.6	3.27	7.6	4.81	12.6	6.36	17.6	7.90	22.6	9.44	27.6	10.99	32.6	12.53	37.6	14.07
2.7	3.30	7.7	4.85	12.7	6.39	17.7	7.93	22.7	9.48	27.7	11.02	32.7	12.56	37.7	14.10
2.8	3.33	7.8	4.88	12.8	6.42	17.8	7.96	22.8	9.51	27.8	11.05	32.8	12.59	37.8	14.14
2.9	3.36	7.9	4.91	12.9	6.45	17.9	7.99	22.9	9.54	27.9	11.08	32.9	12.62	37.9	14.17
3.0	3.40	8.0	4.94	13.0	6.48	18.0	8.02	23.0	9.57	28.0	11.11	33.0	12.65	38.0	14.20
3.1	3.43	8.1	4.97	13.1	6.51	18.1	8.06	23.1	9.60	28.1	11.14	33.1	12.69	38.1	14.23
3.2	3.46	8.2	5.00	13.2	6.54	18.2	8.09	23.2	9.63	28.2	11.17	33.2	12.72	38.2	14.26
3.3	3.49	8.3	5.03	13.3	6.57	18.3	8.12	23.3	9.66	28.3	11.20	33.3	12.75	38.3	14.29
3.4	3.52	8.4	5.06	13.4	6.60	18.4	8.15	23.4	9.69	28.4	11.23	33.4	12.78	38.4	14.32
3.5	3.55	8.5	5.09	13.5	6.64	18.5	8.18	23.5	9.72	28.5	11.27	33.5	12.81	38.5	14.35
3.6	3.58	8.6	5.12	13.6	6.67	18.6	8.21	23.6	9.75	28.6	11.30	33.6	12.84	38.6	14.38
3.7	3.61	8.7	5.15	13.7	6.70	18.7	8.24	23.7	9.78	28.7	11.33	33.7	12.87	38.7	14.41
3.8	3.64	8.8	5.19	13.8	6.73	18.8	8.27	23.8	9.81	28.8	11.36	33.8	12.90	38.8	14.44
3.9	3.67	8.9	5.22	13.9	6.76	18.9	8.30	23.9	9.85	28.9	11.39	33.9	12.93	38.9	14.48
4.0	3.70	9.0	5.25	14.0	6.79	19.0	8.33	24.0	9.88	29.0	11.42	34.0	12.96	39.0	14.51
4.1	3.73	9.1	5.28	14.1	6.82	19.1	8.36	24.1	9.91	29.1	11.45	34.1	12.99	39.1	14.54
4.2	3.77	9.2	5.31	14.2	6.85	19.2	8.40	24.2	9.94	29.2	11.48	34.2	13.02	39.2	14.57
4.3	3.80	9.3	5.34	14.3	6.88	19.3	8.43	24.3	9.97	29.3	11.51	34.3	13.06	39.3	14.60
4.4	3.83	9.4	5.37	14.4	6.91	19.4	8.46	24.4	10.00	29.4	11.54	34.4	13.09	39.4	14.63
4.5	3.86	9.5	5.40	14.5	6.94	19.5	8.49	24.5	10.03	29.5	11.57	34.5	13.12	39.5	14.66
4.6	3.89	9.6	5.43	14.6	6.98	19.6	8.52	24.6	10.06	29.6	11.60	34.6	13.15	39.6	14.69
4.7	3.92	9.7	5.46	14.7	7.01	19.7	8.55	24.7	10.09	29.7	11.64	34.7	13.18	39.7	14.72
4.8	3.95	9.8	5.49	14.8	7.04	19.8	8.58	24.8	10.12	29.8	11.67	34.8	13.21	39.8	14.75
4.9	3.98	9.9	5.52	14.9	7.07	19.9	8.61	24.9	10.15	29.9	11.70	34.9	13.24	39.9	14.78

TABLE NO. XXXIII.

CUBIC YARDS, IN $\frac{100}{9}$ FEET LENGTHS, FOR GIVEN AREAS.

Area.	Cubic yards.	Area.	Cubic yards.	Area.	Cubic yards.	Area.	Cubic yards.	Area.	Cubic yards.
1.62	1	82.62	51	163.62	101	244.62	151	325.62	201
3.24	2	84.24	52	165.24	102	246.24	152	327.24	202
4.86	3	85.86	53	166.86	103	247.86	153	328.86	203
6.48	4	87.48	54	168.48	104	249.48	154	330.48	204
8.10	5	89.10	55	170.10	105	251.10	155	332.10	205
9.72	6	90.72	56	171.72	106	252.72	156	333.72	206
11.34	7	92.34	57	173.34	107	254.34	157	335.34	207
12.96	8	93.96	58	174.96	108	255.96	158	336.96	208
14.58	9	95.58	59	176.58	109	257.58	159	338.58	209
16.20	10	97.20	60	178.20	110	259.20	160	340.20	210
17.82	11	98.82	61	179.82	111	260.82	161	341.82	211
19.44	12	100.44	62	181.44	112	262.44	162	343.44	212
21.06	13	102.06	63	183.06	113	264.06	163	345.06	213
22.68	14	103.68	64	184.68	114	265.68	164	346.68	214
24.30	15	105.30	65	186.30	115	267.30	165	348.30	215
25.92	16	106.92	66	187.92	116	268.92	166	349.92	216
27.54	17	108.54	67	189.54	117	270.54	167	351.54	217
29.16	18	110.16	68	191.16	118	272.16	168	353.16	218
30.78	19	111.78	69	192.78	119	273.78	169	354.78	219
32.40	20	113.40	70	194.40	120	275.40	170	356.40	220
34.02	21	115.02	71	196.02	121	277.02	171	358.02	221
35.64	22	116.64	72	197.64	122	278.64	172	359.64	222
37.26	23	118.26	73	199.26	123	280.26	173	361.26	223
38.88	24	119.88	74	200.88	124	281.88	174	362.88	224
40.50	25	121.50	75	202.50	125	283.50	175	364.50	225
42.12	26	123.12	76	204.12	126	285.12	176	366.12	226
43.74	27	124.74	77	205.74	127	286.74	177	367.74	227
45.36	28	126.36	78	207.36	128	288.36	178	369.36	228
46.98	29	127.98	79	208.98	129	289.98	179	370.98	229
48.60	30	129.60	80	210.60	130	291.60	180	372.60	230
50.22	31	131.22	81	212.22	131	293.22	181	374.22	231
51.84	32	132.84	82	213.84	132	294.84	182	375.84	232
53.46	33	134.46	83	215.46	133	296.46	183	377.46	233
55.08	34	136.08	84	217.08	134	298.08	184	379.08	234
56.70	35	137.70	85	218.70	135	299.70	185	380.70	235
58.32	36	139.32	86	220.32	136	301.32	186	382.32	236
59.94	37	140.94	87	221.94	137	302.94	187	383.94	237
61.56	38	142.56	88	223.56	138	304.56	188	385.56	238
63.18	39	144.18	89	225.18	139	306.18	189	387.18	239
64.80	40	145.80	90	226.80	140	307.80	190	388.80	240
66.42	41	147.42	91	228.42	141	309.42	191	390.42	241
68.04	42	149.04	92	230.04	142	311.04	192	392.04	242
69.66	43	150.66	93	231.66	143	312.66	193	393.66	243
71.28	44	152.28	94	233.28	144	314.28	194	395.28	244
72.90	45	153.90	95	234.90	145	315.90	195	396.90	245
74.52	46	155.52	96	236.52	146	317.52	196	398.52	246
76.14	47	157.14	97	238.14	147	319.14	197	400.14	247
77.76	48	158.76	98	239.76	148	320.76	198	401.76	248
79.38	49	160.38	99	241.38	149	322.38	199	403.38	249
81.00	50	162.00	100	243.00	150	324.00	200	405.00	250

TABLE NO. XXXIII.—*Continued.*

CUBIC YARDS, IN $\frac{100}{9}$ FEET LENGTHS, FOR GIVEN AREAS.

Area.	Cubic yards.	Area.	Cubic yards.	Area.	Cubic yards.	Area.	Cubic yards.	Area.	Cubic yards.
406.62	251	487.62	301	568.62	351	649.62	401	730.62	451
408.24	252	489.24	302	570.24	352	651.24	402	732.24	452
409.86	253	490.86	303	571.86	353	652.86	403	733.86	453
411.48	254	492.48	304	573.48	354	654.48	404	735.48	454
413.10	255	494.10	305	575.10	355	656.10	405	737.10	455
414.72	256	495.72	306	576.72	356	657.72	406	738.72	456
416.34	257	497.34	307	578.34	357	659.34	407	740.34	457
417.96	258	498.96	308	579.96	358	660.96	408	741.96	458
419.58	259	500.58	309	581.58	359	662.58	409	743.58	459
421.20	260	502.20	310	583.20	360	664.20	410	745.20	460
422.82	261	503.82	311	584.82	361	665.82	411	746.82	461
424.44	262	505.44	312	586.44	362	667.44	412	748.44	462
426.06	263	507.06	313	588.06	363	669 06	413	750.06	463
427.68	264	508.68	314	589.68	364	670.68	414	751.68	464
429.30	265	510.30	315	591.30	365	672.30	415	753.30	465
430.92	266	511.92	316	592.92	366	673.92	416	754.92	466
432.54	267	513.54	317	594.54	367	675.54	417	756.54	467
434.16	268	515.16	318	596.16	368	677.16	418	758.16	468
435.78	269	516.78	319	597.78	369	678.78	419	759.78	469
437.40	270	518.40	320	599.40	370	680.40	420	761.40	470
439.02	271	520.02	321	601.02	371	682.02	421	763.02	471
440.64	272	521.64	322	602.64	372	683.64	422	764.64	472
442.26	273	523.26	323	604.26	373	685.26	423	766.26	473
443.88	274	524.88	324	605.88	374	686.88	424	767.88	474
445.50	275	526.50	325	607.50	375	688.50	425	769.50	475
447.12	276	528.12	326	609.12	376	690.12	426	771.12	476
448.74	277	529.74	327	610.74	377	691.74	427	772.74	477
450.36	278	531.36	328	612 36	378	693.36	428	774.36	478
451.98	279	532.98	329	613.98	379	694.98	429	775.98	479
453.60	280	534.60	330	615.60	380	696.60	430	777.60	480
455.22	281	536.22	331	617.22	381	698.22	431	779.22	481
456.84	282	537.84	332	618.84	382	699.84	432	780.84	482
458.46	283	539.46	333	620.46	383	701.46	433	782.46	483
460.08	284	541.08	334	622,08	384	703.08	434	784.08	484
461.70	285	542.70	335	623.70	385	704.70	435	785.70	485
463.32	286	544.32	336	625.32	386	706.32	436	787.32	486
464.94	287	545.94	337	626.94	387	707.94	437	788.94	487
466.56	288	547.56	338	628.56	388	709.56	438	790.56	488
468.18	289	549.18	339	630.18	389	711.18	439	792.18	489
469.80	290	550.80	340	631.80	390	712.80	440	793.80	490
471.42	291	552.42	341	633.42	391	714.42	441	795.42	491
473.04	292	554.04	342	635.04	392	716.04	442	797.04	492
474.66	293	555.66	343	636.66	393	717.66	443	798.66	493
476.28	294	557.28	344	638.28	394	719.28	444	800.28	494
477.90	295	558.90	345	639.90	395	720.90	445	801.90	495
479.52	296	560.52	346	641.52	396	722.52	446	803.52	496
481.14	297	562.14	347	643.14	397	724.14	447	805.14	497
482.76	298	563.76	348	644.76	398	725.76	448	806.76	498
484.38	299	565.38	349	646.38	399	727.38	449	808.38	499
486.00	300	567.00	350	648.00	400	729.00	450	810.00	500

TABLE NO. XXXIII.—*Continued.*

CUBIC YARDS, IN $\frac{100}{9}$ FEET LENGTHS, FOR GIVEN AREAS.

Area.	Cubic yards.	Area.	Cubic yards.	Area.	Cubic yards.	Area.	Cubic yards.	Area.	Cubic yards.
811.62	501	892.62	551	973.62	601	1054.62	651	1135.62	701
813.24	502	894.24	552	975.24	602	1056.24	652	1137.24	702
814.86	503	895.86	553	976.86	603	1057.86	653	1138.86	703
816.48	504	897.48	554	978.48	604	1059.48	654	1140.48	704
818.10	505	899.10	555	980.10	605	1061.10	655	1142.10	705
819.72	506	900.72	556	981.72	606	1062.72	656	1143.72	706
821.34	507	902.34	557	983.34	607	1064.34	657	1145.34	707
822.96	508	903.96	558	984.96	608	1065.96	658	1146.96	708
824.58	509	905.58	559	986.58	609	1067.58	659	1148.58	709
826.20	510	907.20	560	988.20	610	1069.20	660	1150.20	710
827.82	511	908.82	561	989.82	611	1070.82	661	1151.82	711
829.44	512	910.44	562	991.44	612	1072.44	662	1153.44	712
831.06	513	912.06	563	993.06	613	1074.06	663	1155.06	713
832.68	514	913.68	564	994.68	614	1075.68	664	1156.68	714
834.30	515	915.30	565	996.30	615	1077.30	665	1158.30	715
835.92	516	916.92	566	997.92	616	1078.92	666	1159.92	716
837.54	517	918.54	567	999.54	617	1080.54	667	1161.54	717
839.16	518	920.16	568	1001.16	618	1082.16	668	1163.16	718
840.78	519	921.78	569	1002.78	619	1083.78	669	1164.78	719
842.40	520	923.40	570	1004.40	620	1085.40	670	1166.40	720
844.02	521	925.02	571	1006.02	621	1087.02	671	1168.02	721
845.64	522	926.64	572	1007.64	622	1088.64	672	1169.64	722
847.26	523	928.26	573	1009.26	623	1090.26	673	1171.26	723
848.88	524	929.88	574	1010.88	624	1091.88	674	1172.88	724
850.50	525	931.50	575	1012.50	625	1093.50	675	1174.50	725
852.12	526	933.12	576	1014.12	626	1095.12	676	1176.12	726
853.74	527	934.74	577	1015.74	627	1096.74	677	1177.74	727
855.36	528	936.36	578	1017.36	628	1098.36	678	1179.36	728
856.98	529	937.98	579	1018.98	629	1099.98	679	1180.98	729
858.60	530	939.60	580	1020.60	630	1101.60	680	1182.60	730
860.22	531	941.22	581	1022.22	631	1103.22	681	1184.22	731
861.84	532	942.84	582	1023.84	632	1104.84	682	1185.84	732
863.46	533	944.46	583	1025.46	633	1106.46	683	1187.46	733
865.08	534	946.08	584	1027.08	634	1108.08	684	1189.08	734
866.70	535	947.70	585	1028.70	635	1109.70	685	1190.70	735
868.32	536	949.32	586	1030.32	636	1111.32	686	1192.32	736
869.94	537	950.94	587	1031.94	637	1112.94	687	1193.94	737
871.56	538	952.56	588	1033.56	638	1114.56	688	1195.56	738
873.18	539	954.18	589	1035.18	639	1116.18	689	1197.18	739
874.80	540	955.80	590	1036.80	640	1117.80	690	1198.80	740
876.42	541	957.42	591	1038.42	641	1119.42	691	1200.42	741
878.04	542	959.04	592	1040.04	642	1121.04	692	1202.04	742
879.66	543	960.66	593	1041.66	643	1122.66	693	1203.66	743
881.28	544	962.28	594	1043.28	644	1124.28	694	1205.28	744
882.90	545	963.90	595	1044.90	645	1125.90	695	1206.90	745
884.52	546	965.52	596	1046.52	646	1127.52	696	1208.52	746
886.14	547	967.14	597	1048.14	647	1129.14	697	1210.14	747
887.76	548	968.76	598	1049.76	648	1130.76	698	1211.76	748
889.38	549	970.38	599	1051.38	649	1132.38	699	1213.38	749
891.00	550	972.00	600	1053.00	650	1134.00	700	1215.00	750

TABLE NO. XXXIII.—*Continued.*

CUBIC YARDS, IN $\frac{100}{9}$ FEET LENGTHS, FOR GIVEN AREAS

Area.	Cubic yards.	Area.	Cubic yards.	Area.	Cubic yards.	Area.	Cubic yards.	Area.	Cubic yards.
1216.62	751	1297.62	801	1378.62	851	1459.62	901	1540.62	951
1218.24	752	1299.24	802	1380.24	852	1461.24	902	1542.24	952
1219.86	753	1300.86	803	1381.86	853	1462.86	903	1543.86	953
1221.48	754	1302.48	804	1383.48	854	1464.48	904	1545.48	954
1223.10	755	1304.10	805	1385.10	855	1466.10	905	1547.10	955
1224.72	756	1305.72	806	1386.72	856	1467.72	906	1548.72	956
1226.34	757	1307.34	807	1388.34	857	1469.34	907	1550.34	957
1227.96	758	1308.96	808	1389.96	858	1470.96	908	1551.96	958
1229.58	759	1310.58	809	1391.58	859	1472.58	909	1553.58	959
1231.20	760	1312.20	810	1393.20	860	1474.20	910	1555.20	960
1232.82	761	1313.82	811	1394.82	861	1475.82	911	1556.82	961
1234.44	762	1315.44	812	1396.44	862	1477.44	912	1558.44	962
1236.06	763	1317.06	813	1398.06	863	1479.06	913	1560.06	963
1237.68	764	1318.68	814	1399.68	864	1480.68	914	1561.68	964
1239.30	765	1320.30	815	1401.30	865	1482.30	915	1563.30	965
1240.92	766	1321.92	816	1402.92	866	1483.92	916	1564.92	966
1242.54	767	1323.54	817	1404.54	867	1485.54	917	1566.54	967
1244.16	768	1325.16	818	1406.16	868	1487.16	918	1568.16	968
1245.78	769	1326.78	819	1407.78	869	1488.78	919	1569.78	969
1247.40	770	1328.40	820	1409.40	870	1490.40	920	1571.40	970
1249.02	771	1330.02	821	1411.02	871	1492.02	921	1573.02	971
1250.64	772	1331.64	822	1412.64	872	1493.64	922	1574.64	972
1252.26	773	1333.26	823	1414.26	873	1495.26	923	1576.26	973
1253.88	774	1334.88	824	1415.88	874	1496.88	924	1577.88	974
1255.50	775	1336.50	825	1417.50	875	1498.50	925	1579.50	975
1257.12	776	1338.12	826	1419.12	876	1500.12	926	1581.12	976
1258.74	777	1339.74	827	1420.74	877	1501.74	927	1582.74	977
1260.36	778	1341.36	828	1422.36	878	1503.36	928	1584.36	978
1261.98	779	1342.98	829	1423.98	879	1504.98	929	1585.98	979
1263.60	780	1344.60	830	1425.60	880	1506.60	930	1587.60	980
1265.22	781	1346.22	831	1427.22	881	1508.22	931	1589.22	981
1266.84	782	1347.84	832	1428.84	882	1509.84	932	1590.84	982
1268.46	783	1349.46	833	1430.46	883	1511.46	933	1592.46	983
1270.08	784	1351.08	834	1432.08	884	1513.08	934	1594.08	984
1271.70	785	1352.70	835	1433.70	885	1514.70	935	1595.70	985
1273.32	786	1354.32	836	1435.32	886	1516.32	936	1597.32	986
1274.94	787	1355.94	837	1436.94	887	1517.94	937	1598.94	987
1276.56	788	1357.56	838	1438.56	888	1519.56	938	1600.56	988
1278.18	789	1359.18	839	1440.18	889	1521.18	939	1602.18	989
1279.80	790	1360.80	840	1441.80	890	1522.80	940	1603.80	990
1281.42	791	1362.42	841	1443.42	891	1524.42	941	1605.42	991
1283.04	792	1364.04	842	1445.04	892	1526.04	942	1607.04	992
1284.66	793	1365.66	843	1446.66	893	1527.66	943	1608.66	993
1286.28	794	1367.28	844	1448.28	894	1529.28	944	1610.28	994
1287.90	795	1368.90	845	1449.90	895	1530.90	945	1611.90	995
1289.52	796	1370.52	846	1451.52	896	1532.52	946	1613.52	996
1291.14	797	1372.14	847	1453.14	897	1534.14	947	1615.14	997
1292.76	798	1373.76	848	1454.76	898	1535.76	948	1616.76	998
1294.38	799	1375.38	849	1456.38	899	1537.38	949	1618.38	999
1296.00	800	1377.00	850	1458.00	900	1539.00	950	1620.00	1000

TABLE A.

Level Cross Sections.

CUBIC YARDS IN CORRESPONDING PRISMS, 100 FEET LONG.

PART FIRST.

Road-bed 18 feet wide. Side slopes 1½ to 1.

Height.	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
.9	0	64.5	65.5	66.5	67.5	68.5	69.5	70.5	71.5	72.5	73.5
.8	83.5	1	74.5	75.5	76.5	77.5	78.5	79.5	80.5	81.5	83.5
.7	93.5	93.5	2	84.5	85.5	86.5	87.5	88.5	89.5	90.5	91.5
.6	101.5	102.5	103.5	3	94.5	95.5	96.5	97 5	98.5	99.5	100.5
.5	110.5	111.5	112.5	113.5	4	104.5	105.5	106.5	107.5	108.5	109.5
.4	119.5	120.5	121.5	122.5	123.5	5	114.5	115.5	116.5	117.5	118.5
.3	128.5	129 5	130.5	131.5	132.5	133.5	6	124.5	125.5	126.5	127.5
.2	137.5	138.5	139.5	140.5	141.5	142.5	143.5	7	134.5	135.5	136.5
.1	146.5	147.5	148.5	149.5	150.5	151.5	152.5	153.5	8	144.5	145.5
.0	155.5	156.5	157.5	158.5	159.5	160.5	161.5	162.5	163.5	9	154.5
	164.5	165.5	166.5	167.5	168.5	169.5	170.5	171.5	172.5	173.5	10
.9	11	174.5	175.5	176.5	177.5	178.5	179.5	180.5	181.5	182.5	183.5
.8	193.5	12	184.5	185.5	186.5	187.5	188.5	189.5	190.5	191.5	192.5
.7	203.5	203.5	13	194.5	195.5	196.5	197.5	198.5	199.5	200.5	201.5
6	211.5	213.5	213.5	14	204.5	205.5	206.5	207.5	208.5	209.5	210.5
					15						

TABLE A.—*Continued.*

PART SECOND.

Height.	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
	0	0.0	6.7	13.6	20.5	27.6	34.7	42.0	49.4	56.9	64.5
.9		64.5	65.5	66.5	67.5	68.5	69.5	70.5	71.5	72.5	73.5
	146.7	1	72.2	80.1	88.0	96.1	104.2	112.5	120.9	129.4	138.0
.8	83.5		74.5	75.5	76.5	77.5	78.5	79.5	80.5	81.5	82.5
	230.2	240.1	2	155.6	164.5	173.6	182.7	192.0	201.4	210.9	220.5
.7	92.5	93.5		84.5	85.5	86.5	87.5	88.5	89.5	90.5	91.5
	322.7	333.6	344.5	3	250.0	260.1	270.2	280.5	290.9	301.4	312.0
.6	101.5	102.5	103.5		94.5	95.5	96.5	97.5	98.5	99.5	100.5
	424.2	436.1	448.0	460.1	4	355.6	366.7	378.0	389.4	400.9	412.5
.5	110.5	111.5	112.5	113.5		104.5	105.5	106.5	107.5	108.5	109.5
	534.7	547.6	560.5	573.6	586.7	5	472.2	484.5	496.9	509.4	522.0
.4	119.5	120.5	121.5	122.5	123.5		114.5	115.5	116.5	117.5	118.5
	654.2	668.1	682.0	696.1	710.2	724.5	6	600.0	613.4	626.9	640.5
.3	128.5	129.5	130.5	131.5	132.5	133.5		124.5	125.5	126.5	127.5
	782.7	797.6	812.5	827.6	842.7	858.0	873.4	7	738.9	753.4	768.0
.2	137.5	138.5	139.5	140.5	141.5	142.5	143.5		134.5	135.5	136.5
	920.2	936.1	952.0	968.1	984.2	1000.5	1016.9	1033.4	8	888.9	904.5
.1	146.5	147.5	148.5	149.5	150.5	151.5	152.5	153.5		144.5	145.5
	1066.7	1083.6	1100.5	1117.6	1134.7	1152.0	1169.4	1186.9	1204.5	9	1050.0
.0	155.5	156.5	157.5	158.5	159.5	160.5	161.5	162.5	163.5		154.5
	1222.2	1240.1	1258.0	1276.1	1294.2	1312.5	1330.9	1349.4	1368.0	1386.7	10
	164.5	165.5	166.5	167.5	168.5	169.5	170.5	171.5	172.5	173.5	
	11	1405.6	1424.5	1443.6	1462.7	1482.0	1501.4	1520.9	1540.5	1560.2	1580.1
.9		174.5	175.5	176.5	177.5	178.5	179.5	180.5	181.5	182.5	183.5
	1784.5	12	1600.0	1620.1	1640.2	1660.5	1680.9	1701.4	1722.0	1742.7	1763.6
.8	193.5		184.5	185.5	186.5	187.5	188.5	189.5	190.5	191.5	192.5
	1978.0	2000.1	13	1805.6	1826.7	1848.0	1869.4	1890.9	1912.5	1934.2	1956.1
.7	202.5	203.5		194.5	195.5	196.5	197.5	198.5	199.5	200.5	201.5
	2180.5	2203.6	2226.7	14	2022.2	2044.5	2066.9	2089.4	2112.0	2134.7	2157.6
.6	211.5	212.5	213.5		204.5	205.5	206.5	207.5	208.5	209.5	210.5
	2392.0	2416.1	2440.2	2464.5	15	2250.0	2273.4	2296.9	2320.5	2344.2	2368.1

TABLE B.

Level Cross Sections.

CUBIC YARDS IN CORRESPONDING PRISMS, 100 FEET LONG.

Road-bed 28 feet wide. Side slopes ½ to 1.

Height.		.0	.1	.2	.3	.4	.5	.6	.7	.8	.9
0		0.0	10.4	20.8	31.3	41.8	52.3	62.9	73.5	84.1	94.8
	94.	8 95.	2 95.	5 95.	8 96.	1 96.	5 96.	8 97.	2 97.	5 97.	9
1		105.6	116.3	127.1	137.9	148.8	159.7	170.7	181.6	192.7	203.7
	98.	1 98.	5 98.	8 99.	2 99.	5 99.	9 100.	1 100.	5 100.	8 101.	2
2		214.8	225.9	237.1	248.3	259.6	270.8	282.1	293.5	304.9	316.3
	101.	5 101.	9 102.	2 102.	5 102.	8 103.	2 103.	5 103.	8 104.	2 104.	5
3		327.8	339.3	350.8	362.4	374.0	385.6	397.3	409.1	420.8	432.6
	104.	8 105.	1 105.	5 105.	8 106.	2 106.	5 106.	9 107.	1 107.	5 107.	8
4		444.4	456.3	468.2	480.2	492.1	504.2	516.2	528.3	540.4	552.6
	108.	2 108.	5 108.	9 109.	1 109.	5 109.	8 110.	2 110.	5 110.	9 111.	2
5		564.8	577.1	589.3	601.6	614.0	626.4	638.8	651.3	663.8	676.3
	111.	5 111.	8 112.	2 112.	5 112.	8 113.	2 113.	5 113.	8 114.	1 114.	5
6		688.9	701.5	714.1	726.8	739.6	752.3	765.1	777.9	790.8	803.7
	114.	8 115.	2 115.	5 115.	9 116.	1 116.	5 116.	8 117.	2 117.	5 117.	9
7		816.7	829.6	842.7	855.7	868.8	881.9	895.1	908.3	921.6	934.8
	118.	1 118.	5 118.	8 119.	2 119.	5 119.	9 120.	2 120.	5 120.	8 121.	2
8		948.1	961.5	974.9	988.3	1001.8	1015.3	1028.8	1042.4	1056.0	1069.6
	121.	5 121.	8 122.	2 122.	5 122.	8 123.	1 123.	5 123.	8 124.	2 124.	5
9		1083.3	1097.1	1110.8	1124.6	1138.4	1152.3	1166.2	1180.2	1194.1	1208.2
	124.	9 125.	1 125.	5 125.	8 126.	2 126.	5 126.	9 127.	1 127.	5 127.	8
10		1222.2	1236.3	1250.4	1264.6	1278.8	1293.1	1307.3	1321.6	1336.0	1350.4

TABLE NO. XXXIV.

Level Cross Sections.

CUBIC YARDS IN LENGTHS OF 100 FEET.

Road-bed 24 feet wide. Side slope 1½ to 1.

Height.	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	Height.
0.0	0	4	9	14	18	23	27	32	37	42	46	51	56	61	66	71	0.0
0.1	4	9	13	18	23	27	32	37	41	46	51	56	61	66	71	76	0.1
0.2	9	13	18	23	27	32	37	41	46	51	56	61	65	70	75	80	0.2
0.3	14	18	23	27	32	36	41	46	51	56	60	65	70	75	80	85	0.3
0.4	18	23	27	32	36	41	46	51	55	60	65	70	75	80	85	90	0.4
0.5	23	27	32	36	41	46	51	55	60	65	70	75	80	85	90	95	0.5
0.6	27	32	37	41	46	51	55	60	65	70	75	80	85	90	95	100	0.6
0.7	32	37	41	46	51	55	60	65	70	75	80	85	90	95	100	105	0.7
0.8	37	41	46	51	55	60	65	70	75	80	85	90	95	100	105	110	0.8
0.9	42	46	51	56	60	65	70	75	80	85	89	94	100	105	110	115	0.9
1.0	46	51	56	60	65	70	75	80	85	89	94	99	105	110	115	120	1.0
1.1	51	56	61	65	70	75	80	85	90	94	99	105	110	115	120	125	1.1
1.2	56	61	65	70	75	80	85	90	95	100	105	110	115	120	125	130	1.2
1.3	61	66	70	75	80	85	90	95	100	105	110	115	120	125	130	135	1.3
1.4	66	71	75	80	85	90	95	100	105	110	115	120	125	130	135	141	1.4
1.5	71	76	80	85	90	95	100	105	110	115	120	125	130	135	141	146	1.5
Height.	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	Height.

TABLE NO. XXXV.

Level Cross Sections.

CUBIC YARDS IN CORRESPONDING PRISMS 100 FEET LONG.

Road-bed 12 feet wide. Side slopes 1 to 1.

Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.	Height.	Cubic yards.
0.0	0	5.0	315	10.0	815	15.0	1500	20.0	2370	25.0	3426	30.0	4667	35.0	6093
0.1	4	5.1	323	10.1	827	15.1	1516	20.1	2390	25.1	3449	30.1	4693	35.1	6123
0.2	9	5.2	331	10.2	839	15.2	1531	20.2	2409	25.2	3472	30.2	4720	35.2	6153
0.3	14	5.3	340	10.3	851	15.3	1547	20.3	2429	25.3	3495	30.3	4747	35.3	6184
0.4	18	5.4	348	10.4	863	15.4	1563	20.4	2448	25.4	3518	30.4	4774	35.4	6115
0.5	23	5.5	356	10.5	875	15.5	1579	20.5	2468	25.5	3542	30.5	4801	35.5	6245
0.6	28	5.6	365	10.6	887	15.6	1595	20.6	2487	25.6	3565	30.6	4828	35.6	6276
0.7	33	5.7	374	10.7	900	15.7	1611	20.7	2507	25.7	3588	30.7	4855	35.7	6307
0.8	38	5.8	382	10.8	912	15.8	1627	20.8	2527	25.8	3612	30.8	4882	35.8	6338
0.9	43	5.9	391	10.9	924	15.9	1643	20.9	2547	25.9	3636	30.9	4910	35.9	6369
1.0	48	6.0	400	11.0	937	16.0	1659	21.0	2567	26.0	3659	31.0	4937	36.0	6400
1.1	53	6.1	409	11.1	950	16.1	1676	21.1	2587	26.1	3683	31.1	4964	36.1	6431
1.2	59	6.2	418	11.2	962	16.2	1692	21.2	2607	26.2	3707	31.2	4992	36.2	6462
1.3	64	6.3	427	11.3	975	16.3	1708	21.3	2627	26.3	3731	31.3	5020	36.3	6494
1.4	69	6.4	436	11.4	988	16.4	1725	21.4	2647	26.4	3755	31.4	5047	36.4	6525
1.5	75	6.5	445	11.5	1001	16.5	1742	21.5	2668	26.5	3779	31.5	5075	36.5	6556
1.6	81	6.6	455	11.6	1014	16.6	1758	21.6	2688	26.6	3803	31.6	5103	36.6	6588
1.7	86	6.7	464	11.7	1027	16.7	1775	21.7	2708	26.7	3827	31.7	5131	36.7	6620
1.8	92	6.8	473	11.8	1040	16.8	1792	21.8	2729	26.8	3851	31.8	5159	36.8	6651
1.9	98	6.9	483	11.9	1053	16.9	1809	21.9	2750	26.9	3876	31.9	5187	36.9	6683
2.0	104	7.0	493	12.0	1067	17.0	1826	22.0	2770	27.0	3900	32 0	5215	37.0	6715
2.1	110	7.1	502	12.1	1080	17.1	1843	22.1	2791	27.1	3924	32.1	5243	37.1	6747
2.2	116	7.2	512	12.2	1093	17.2	1860	22.2	2812	27.2	3949	32.2	5271	37.2	6779
2.3	122	7.3	522	12.3	1107	17.3	1877	22.3	2833	27.3	3974	32.3	5300	37.3	6811
2.4	128	7.4	532	12.4	1121	17.4	1895	22.4	2854	27.4	3998	32.4	5328	37.4	6843
2.5	134	7.5	542	12.5	1134	17.5	1912	22.5	2875	27.5	4023	32.5	5356	37.5	6875
2.6	141	7.6	552	12.6	1148	17.6	1929	22.6	2896	27.6	4048	32.6	5385	37.6	6907
2.7	147	7.7	562	12.7	1162	17.7	1947	22.7	2917	27.7	4073	32.7	5414	37.7	6940
2.8	153	7.8	572	12.8	1176	17.8	1965	22.8	2939	27.8	4098	32.8	5442	37.8	6972
2.9	160	7.9	582	12.9	1190	17.9	1982	22.9	2960	27.9	4123	32.9	5471	37.9	7004
3.0	167	8.0	593	13.0	1204	18.0	2000	23.0	2981	28.0	4148	33.0	5500	38.0	7037
3.1	173	8.1	603	13.1	1218	18.1	2018	23.1	3003	28.1	4173	33.1	5529	38.1	7070
3.2	180	8.2	613	13.2	1232	18.2	2036	23.2	3025	28.2	4199	33.2	5558	38.2	7102
3.3	187	8.3	624	13.3	1246	18.3	2054	23.3	3046	28.3	4224	33.3	5587	38.3	7135
3.4	194	8.4	635	13.4	1261	18.4	2072	23.4	3068	28.4	4249	33.4	5616	38.4	7168
3.5	201	8.5	645	13.5	1275	18.5	2090	23.5	3090	28.5	4275	33.5	5645	38.5	7201
3.6	208	8.6	656	13.6	1289	18.6	2108	23.6	3112	28.6	4301	33.6	5675	38.6	7234
3.7	215	8.7	667	13.7	1304	18.7	2126	23.7	3134	28.7	4326	33.7	5704	38.7	7267
3.8	222	8.8	678	13.8	1319	18.8	2145	23.8	3156	28.8	4352	33.8	5733	38.8	7300
3.9	230	8.9	689	13.9	1333	18.9	2163	23.9	3178	28.9	4378	33.9	5763	38.9	7333
4.0	237	9.0	700	14.0	1348	19.0	2181	24.0	3200	29.0	4404	34.0	5793	39.0	7367
4.1	244	9.1	711	14.1	1363	19.1	2200	24.1	3222	29.1	4430	34.1	5822	39.1	7400
4.2	252	9.2	722	14.2	1378	19.2	2219	24.2	3245	29.2	4456	34.2	5852	39.2	7433
4.3	260	9.3	734	14.3	1393	19.3	2237	24.3	3267	29.3	4482	34.3	5882	39.3	7467
4.4	267	9.4	745	14.4	1408	19.4	2256	24.4	3289	29.4	4508	34.4	5912	39.4	7501
4.5	275	9.5	756	14.5	1423	19.5	2275	24.5	3312	29.5	4534	34.5	5942	39.5	7534
4.6	283	9.6	768	14.6	1438	19.6	2294	24.6	3335	29.6	4561	34.6	5972	39.6	7568
4.7	291	9.7	780	14.7	1454	19.7	2313	24.7	3357	29.7	4587	34.7	6002	39.7	7602
4.8	299	9.8	791	14.8	1469	19.8	2332	24.8	3380	29.8	4613	34.8	6032	39.8	7636
4.9	307	9.9	803	14.9	1484	19.9	2351	24.9	3403	29.9	4640	34.9	6062	39.9	7670

TABLE NO. XXXVI.

Side Triangles.

Cubic yards in corresponding prisms 100 feet long.

Road-bed 12 feet wide. Side slopes 1 to 1.

Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.	Center height.	Cubic yards.
0.0	11.1	5.0	20.4	10.0	29.6	15.0	38.9	20.0	48.1	25.0	57.4	30.0	66.7	35.0	75.9
0.1	11.3	5.1	20.6	10.1	29.8	15.1	39.1	20.1	48.3	25.1	57.6	30.1	66.9	35.1	76.1
0.2	11.5	5.2	20.7	10.2	30.0	15.2	39.3	20.2	48.5	25.2	57.8	30.2	67.0	35.2	76.3
0.3	11.7	5.3	20.9	10.3	30.2	15.3	39.4	20.3	48.7	25.3	58.0	30.3	67.2	35.3	76.5
0.4	11.9	5.4	21.1	10.4	30.4	15.4	39.6	20.4	48.9	25.4	58.1	30.4	67.4	35.4	76.7
0.5	12.0	5.5	21.3	10.5	30.6	15.5	39.8	20.5	49.1	25.5	58.3	30.5	67.6	35.5	76.9
0.6	12.2	5.6	21.5	10.6	30.7	15.6	40.0	20.6	49.3	25.6	58.5	30.6	67.8	35.6	77.0
0.7	12.4	5.7	21.7	10.7	30.9	15.7	40.2	20.7	49.4	25.7	58.7	30.7	68.0	35.7	77.2
0.8	12.6	5.8	21.9	10.8	31.1	15.8	40.4	20.8	49.6	25.8	58.9	30.8	68.1	35.8	77.4
0.9	12.8	5.9	22.0	10.9	31.3	15.9	40.6	20.9	49.8	25.9	59.1	30.9	68.3	35.9	77.6
1.0	13.0	6.0	22.2	11.0	31.5	16.0	40.7	21.0	50.0	26.0	59.3	31.0	68.5	36.0	77.8
1.1	13.1	6.1	22.4	11.1	31.7	16.1	40.9	21.1	50.2	26.1	59.4	31.1	68.7	36.1	78.0
1.2	13.3	6.2	22.6	11.2	31.9	16.2	41.1	21.2	50.4	26.2	59.6	31.2	68.9	36.2	78.1
1.3	13.5	6.3	22.8	11.3	32.0	16.3	41.3	21.3	50.6	26.3	59.8	31.3	69.1	36.3	78.3
1.4	13.7	6.4	23.0	11.4	32.2	16.4	41.5	21.4	50.7	26.4	60.0	31.4	69.3	36.4	78.5
1.5	13.9	6.5	23.1	11.5	32.4	16.5	41.7	21.5	50.9	26.5	60.2	31.5	69.4	36.5	78.7
1.6	14.1	6.6	23.3	11.6	32.6	16.6	41.9	21.6	51.1	26.6	60.4	31.6	69.6	36.6	78.9
1.7	14.3	6.7	23.5	11.7	32.8	16.7	42.0	21.7	51.3	26.7	60.6	31.7	69.8	36.7	79.1
1.8	14.4	6.8	23.7	11.8	33.0	16.8	42.2	21.8	51.5	26.8	60.7	31.8	70.0	36.8	79.3
1.9	14.6	6.9	23.9	11.9	33.1	16.9	42.4	21.9	51.7	26.9	60.9	31.9	70.2	36.9	79.4
2.0	14.8	7.0	24.1	12.0	33.3	17.0	42.6	22.0	51.9	27.0	61.1	32.0	70.4	37.0	79.6
2.1	15.0	7.1	24.3	12.1	33.5	17.1	42.8	22.1	52.0	27.1	61.3	32.1	70.6	37.1	79.8
2.2	15.2	7.2	24.4	12.2	33.7	17.2	43.0	22.2	52.2	27.2	61.5	32.2	70.7	37.2	80.0
2.3	15.4	7.3	24.6	12.3	33.9	17.3	43.1	22.3	52.4	27.3	61.7	32.3	70.9	37.3	80.2
2.4	15.6	7.4	24.8	12.4	34.1	17.4	43.3	22.4	52.6	27.4	61.9	32.4	71.1	37.4	80.4
2.5	15.7	7.5	25.0	12.5	34.3	17.5	43.5	22.5	52.8	27.5	62.0	32.5	71.3	37.5	80.6
2.6	15.9	7.6	25.2	12.6	34.4	17.6	43.7	22.6	53.0	27.6	62.2	32.6	71.5	37.6	80.7
2.7	16.1	7.7	25.4	12.7	34.6	17.7	43.9	22.7	53.1	27.7	62.4	32.7	71.7	37.7	80.9
2.8	16.3	7.8	25.6	12.8	34.8	17.8	44.1	22.8	53.3	27.8	62.6	32.8	71.9	37.8	81.1
2.9	16.5	7.9	25.7	12.9	35.0	17.9	44.3	22.9	53.5	27.9	62.8	32.9	72.0	37.9	81.3
3.0	16.7	8.0	25.9	13.0	35.2	18.0	44.4	23.0	53.7	28.0	63.0	33.0	72.2	38.0	81.5
3.1	16.9	8.1	26.1	13.1	35.4	18.1	44.6	23.1	53.9	28.1	63.1	33.1	72.4	38.1	81.7
3.2	17.0	8.2	26.3	13.2	35.6	18.2	44.8	23.2	54.1	28.2	63.3	33.2	72.6	38.2	81.9
3.3	17.2	8.3	26.5	13.3	35.7	18.3	45.0	23.3	54.3	28.3	63.5	33.3	72.8	38.3	82.0
3.4	17.4	8.4	26.7	13.4	35.9	18.4	45.2	23.4	54.4	28.4	63.7	33.4	73.0	38.4	82.2
3.5	17.6	8.5	26.9	13.5	36.1	18.5	45.4	23.5	54.6	28.5	63.9	33.5	73.1	38.5	82.4
3.6	17.8	8.6	27.0	13.6	36.3	18.6	45.6	23.6	54.8	28.6	64.1	33.6	73.3	38.6	82.6
3.7	18.0	8.7	27.2	13.7	36.5	18.7	45.7	23.7	55.0	28.7	64.3	33.7	73.5	38.7	82.8
3.8	18.1	8.8	27.4	13.8	36.7	18.8	45.9	23.8	55.2	28.8	64.4	33.8	73.7	38.8	83.0
3.9	18.3	8.9	27.6	13.9	36.9	18.9	46.1	23.9	55.4	28.9	64.6	33.9	73.9	38.9	83.1
4.0	18.5	9.0	27.8	14.0	37.0	19.0	46.3	24.0	55.6	29.0	64.8	34.0	74.1	39.0	83.3
4.1	18.7	9.1	28.0	14.1	37.2	19.1	46.5	24.1	55.7	29.1	65.0	34.1	74.3	39.1	83.5
4.2	18.9	9.2	28.1	14.2	37.4	19.2	46.7	24.2	55.9	29.2	65.2	34.2	74.4	39.2	83.7
4.3	19.1	9.3	28.3	14.3	37.6	19.3	46.9	24.3	56.1	29.3	65.4	34.3	74.6	39.3	83.9
4.4	19.3	9.4	28.5	14.4	37.8	19.4	47.0	24.4	56.3	29.4	65.6	34.4	74.8	39.4	84.1
4.5	19.4	9.5	28.7	14.5	38.0	19.5	47.2	24.5	56.5	29.5	65.7	34.5	75.0	39.5	84.3
4.6	19.6	9.6	28.9	14.6	38.1	19.6	47.4	24.6	56.7	29.6	65.9	34.6	75.2	39.6	84.4
4.7	19.8	9.7	29.1	14.7	38.3	19.7	47.6	24.7	56.9	29.7	66.1	34.7	75.4	39.7	84.6
4.8	20.0	9.8	29.3	14.8	38.5	19.8	47.8	24.8	57.0	29.8	66.3	34.8	75.6	39.8	84.8
4.9	20.2	9.9	29.4	14.9	38.7	19.9	48.0	24.9	57.2	29.9	66.5	34.9	75.7	39.9	85.0